The Plough, the Loom, and the Anvil.

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FREE TRADE WITH ENGLAND,

AND ITS EFFECTS ON THE FARMERS AND PLANTERS OF THE WORLD.

THE more thoroughly it shall be examined, the more fully will it be seen that the doctrine taught by the patriot Jefferson, when he said that "we must now place the manufacturer by the side of the agriculturist," is in accordance with the common sense of mankind. Everywhere throughout the world the producer desires to have the consumer settle near him, and he "rejoices in the arrival of the blacksmith and the shoemaker, because they come to eat on the spot the corn which heretofore he has carried ten, twenty, or thirty miles to market, to exchange for shoes for himself and his horses. With each new consumer of his products that arrives he is enabled more and more to concentrate his action and his thoughts upon his home, while each new arrival tends to increase his *power* of consuming commodities brought from a distance, because it tends to diminish his *necessity* for seeking at a distance a market for the produce of his farm."—*Carey's Past, Present and Future*, p. 301.

The landowner who makes a lease, inserts a provision that no hay shall be sold off the ground, or, that if it be sold, an equivalent quantity of manure shall be returned. He desires to have the consuming ox take his place by the side of the producing man, because common sense teaches him that constant cropping of the land, returning nothing back to the great giver, must be followed by exhaustion of the land, to be itself followed by exhaustion of the man who cultivates it; while experience teaches him that where the manure is regularly returned back upon the land, its powers increase and crops become large, and the tenant grows rich and is enabled to increase in quantity and improve in quality the machinery of cultivation, to the advantage of himself and his landlord.

If we desire to find the true policy of nations, we need only to study what it is that the individual man of good practical common sense is prompted to do, and what he does when left to determine for himself his course of action. We never find such a man selling all his hay and buying no manure. We find, on the contrary, that he buys manure, and marl, and lime, and that his farm increases in its productive power the more he takes from it. If we look to his spendthrift neighbor, we see him selling hay and buying no manure, while the marl and the lime are permitted to remain where nature placed them, underlying the poor land from which he runs away, as may now be seen in Virginia and South Carolina.

England has marl and lime in abundance, and much of them she uses—and yet she employs fleets of ships in bringing manure—*guano*—from abroad. She knows the value of manures, and every individual man practises upon that knowledge, yet the community of England teaches to all the rest of the communities of the world, that they are to be enriched by bringing to her *their* wheat, and *their* corn, and *their* rye, and *their* oats, and *their* rice, to be eaten on *her* ground, giving her the manure yielded by the food of man, while wasting on the road that yielded by the food of animals—and her whole

colonial system is based upon the idea of compelling subjects to do that which free men would never voluntarily do. Therefore it was that these United States threw off her yoke, for the stamp tax, and the tax on tea, would not alone have produced the Revolution. With freedom came protection against the error of her system; with protection came wealth and strength, because with it came the power of returning to the land what was taken from the land. The result may be seen in the following remarks of a distinguished member of parliament, in a recent debate in the House of Commons.

"For what purpose do we keep 9000 troops in North America? [*Hear, hear.*] Is it to protect the colonists against the United States? But if they are loyal at heart they are strong enough to protect themselves; if they are disloyal, thrice 9000 men will not keep them down. [*Hear, hear.*] But suppose they were to separate from us, and to form independent states, or even to join the United States, would they not become more profitable as colonists than they are at present? [*Hear.*] The United States of America are, in the strictest signification of the word, still colonies of Great Britain, [*hear,*] as Carthage was a colony of Tyre, and the cities of Ionia and Sicily were colonies of Greece; for the word colony does not necessarily imply dependency, but merely a community composed of persons who have removed from one country and settled in another, for the purpose of cultivating it. [*Hear, hear.*] Now our colonies (as I will term them) of the United States are in every point of view more useful to us than all our other colonies put together. [*Hear, hear.*] In 1844 we exported to the United States produce and manufactures to the value of £8,000,000—an amount equal to the whole of our real export trade to all our colonial dominions, which we govern at a cost of £4,000,000 a year; while the United States costs us for consular and diplomatic services not more than £15,000 a year, [*hear, hear,*] and not one ship of war is required to protect our trade with the United States."

Such is the fact. The United States are more valuable to England than any colony, and the reason therefor is to be found in the fact that they became independent, and protected, in a small degree, their own industry. The farmer who lives at a distance from the blacksmith, the shoemaker, the carpenter, and the wheelwright, is a very poor customer to the storekeeper, while he who is surrounded by blacksmiths, and shoemakers, and tailors, and wheelwrights, and carpenters, buys largely of cloths, and perhaps of silks. The one wastes labor and manure, while the other economizes both, and every man thrives by the prosperity of his neighbors, while every man suffers from the improvidence and waste of those by whom he is surrounded.

The system of England is injurious to herself and to the world, because it tends to compel men throughout the world to waste in the work of transportation that labor which might beneficially be applied to the work of production—to compel men, and women, and boys, and girls, and horses, and wagons, to stand idle because of the want of employment for their days, and weeks, and months, when they cannot be employed in the work of the farm—and to compel the planter to give five bales of cotton produced by great labor bestowed on a very costly machine, in exchange for one bale of cotton converted into cloth by aid of a comparatively inexpensive machine, and therefore to remain poor, when, but for her interference, he might have two bales of cloth in exchange for three bales of cotton converted into cloth by men who ate upon the ground upon which it was produced the food required for their nourishment, giving back to the earth the refuse of its products, and thus enriching both the land and its owner. It is the system of exhaustion and impoverishment, and therefore it is that England requires colonies where people can be *compelled* to send their rice and their cotton, their wheat and their wool to her—the former to be eaten by the men who convert the latter into cloth—and therefore too it is that every colony and every country that enjoys "free trade" with England is in a state of ruin.

Of all the countries of Europe there is none that has been so closely connected in trade with England as Portugal. To gain a market for her wines the latter made the celebrated Methuen treaty, by which she abandoned her

manufactures, and placed the consumer at a distance from the producer. From that hour Portugal has declined, and she is now at the bottom of the list of nations. Her name is synonymous with poverty and wretchedness, yet she has a soil and a climate capable of yielding in abundance every thing needed for the supply of the wants of man, and that will do so whenever she shall determine to free herself from the yoke of England.

Canada possesses, it is said, the finest wheat-growing land on this continent, yet it is almost valueless, while inferior land on this side of the imaginary line that constitutes the boundary, changes hands frequently at prices five times greater than could be had for that which is better in townships immediately adjoining, as may be seen by reference to Lord Durham's Report, an extract from which was given in our last. (See page 179.) Why is it so? Some would say—because we elect our presidents and governors, while the Canadians do not; but the real cause is that the Canadian cultivator is dependent *entirely* on foreign markets, and he is compelled to waste in the work of transportation the labor that should be applied to that of production, and he loses his manure on the road and in the foreign markets to which he sends his products, while eaten up by commission merchants and shipowners, and so must he continue to be while he remains a subject of England. The annexation of Canada to the Union would treble the value of every foot of her land, because the producer would then be, to a certain degree, protected in his efforts to seduce the consumers of his products—the shoemaker, the blacksmith, the iron founder, and the coal miner—to come and sit down near him.

Ireland is ruined. Her people have no manufactures, nor can they have any while subject to the control of England; and until they shall have them, they must continue to waste more time than would make all the iron and all the cloth made in Britain, while wasting on the road and in distant markets all the manure yielded by their products. With each step in her downward progress, Ireland becomes a poorer customer, and the time is probably not far distant when she will be emancipated, because of the cost of governing her being far greater than the amount that can be wrung from her by taxation.

India is ruined. Free trade with England destroyed her manufactures, and the richest of her lands have relapsed into *jungle*, while the miserable cultivator of cotton raises on the high lands poor crops that his equally miserable cattle are unable to carry or drag through the "rich black clay" that lies between him and the Ganges. In the following extract from a paper on India, by an enthusiastic advocate of free trade, may be seen the effects of the colonial system.

"Looking to our Indian empire, we cannot but be struck with the singular facilities which—in climate, soil, and population—it presents to the commerce of Great Britain. At first sight, it seems to offer every thing that could be devised, in order to induce to a commercial intercourse almost without limit. There is scarcely one important article of tropical produce which is consumed in this country, either as the raw material of our manufactures, or as an article of daily use, for the production of which India is not as well, or better, adapted than any other country; while its dense and industrious population would seem to offer an illimitable demand for our manufactures. Nor are there opposed to these natural and flattering elements of commerce any fiscal restrictions to counteract their beneficial results. Indian produce has long entered into consumption in the home markets on the most favorable terms; while, in the introduction of British manufactures into India, a very moderate duty is imposed. Yet, notwithstanding all these advantages, it is a notorious fact, deducible alike from the tendency which the supply of some of the most important articles of Indian produce show to fall off, and from the stagnant, or rather declining, state of the export of our manufactures to those markets—and, perhaps, still more so, from the extremely unprofitable and unsatisfactory result which has attended both the export and import trade with India for some time past,—that there exist some great and serious impediments to the realization of the just and fair hopes entertained with regard to our Indian trade."—*Economist.*

These men *think* that free trade with them *should* bring wealth. They *see*, however, that it *does* bring with it poverty, famine, and pestilence, and they cannot understand it. They do not yet see that it has been the object of their whole system to bring about a separation between the producer and the consumer, and thus produce a state of things in the highest degree unnatural. They are unable yet to see that it is to the fact that the system is unnatural, are due its costliness and its instability, requiring for its maintenance large fleets and armies and heavy taxes, and being liable to perpetual revulsions, producing ruin abroad and at home.

Let us turn to the West Indies, and what do we see there but ruin? It is ruin everywhere, and it must continue to be ruin in every country that is unable to protect itself.

We have said that every man profits by his neighbor's prosperity, while every man is injured by that which injures his neighbor. How is it with England? Does she profit by the ruin of her neighbors? Let the experience of the last twelve months answer the question. She has above a hundred millions of *unprotected* subjects, and the market of the *partially protected* United States is the only one to which she can look with hope in her distress, and the reason why she can do so is *that it has been protected.* Her people are in poverty and distress. Rags and nakedness abound, and famine and pestilence sweep off hundreds of thousands, while the land of the United Kingdom, properly cultivated, is capable of yielding abundant food and raiment to a population five times greater than is there collected. Her system is one of exhaustion abroad and at home. She taxes the world for its maintenance, and she wastes on fleets and armies five times more than the product of those taxes.

Free trade should exist throughout the world, and it would exist, were *the people* of the world left at liberty to manage their own affairs. Were the people of England and Ireland masters of their own destinies—were they so happy as to be as free as are those of the United States—fleets, and armies, and colonies would disappear, and the land would be carefully and universally cultivated, and the prices of labor and capital would rise; and then there might be free trade, for then would the system become as steady as would be that of this country, but for the perpetual revulsions in the affairs of the great broker who insists upon being the universal manufacturer and exchanger for the world, and breaks himself every fourth or fifth year, spreading ruin and desolation around, and then heaping maledictions on the people of other nations whom he has ruined. Free trade will come, with all its blessings, when that system shall be at an end, but not till then. Those who most desire that it shall come, should stand foremost in advocacy of the measures that will tend to bring it to an end, and should most desire to see those measures complete and effectual. Of all the nations of the world there is none that now can exercise so much power for that purpose as the United States. The tariff of 1842 was doing the work, and had it been established as the act of *the whole people*, this country would be this year producing almost a million of tons of iron, and consuming eight hundred thousand bales of cotton, and all the wool that could be produced, and the producers of iron, and coal, and cloth, would be eating the corn, and the potatoes, and the turnips, and the cabbages, and the veal, and drinking the milk of the farmer who would now be rejoicing in the universal prosperity, and praying to the Almighty Giver of all good things for good crops for the famished people of Ireland, instead of, as now, praying for the appearance of the potato-rot that he may find a market for his vast surplus of food. Concentration makes the food come from the rich soils of the earth, and with it men grow rich, and industrious, and moral, and they become more enlight-

ened and more free. Deconcentration drives men to begin on the poor soils of the earth, and with each step of its progress men become poorer, less industrious, less temperate, less moral, less enlightened, and more and more a prey to demagogues who desire to enrich themselves at their expense. The policy of 1842 was that of concentration. That of 1846 is that of deconcentration, as may be seen in the records of closing factories, and abandoned mines and furnaces.

WOOL AND WOOLLENS.

THE following extract from a letter that has been communicated to us will have interest for our wool-growing readers:

"In consequence of the great commercial crisis in Europe the last year, with the political troubles of the present, this country has been filled with foreign woollen fabrics, on which great sacrifices are being made; a large portion of these goods belong to bankrupt estates, and they must be sold whether they return 25, 50 or 75 cents on the dollar of their value abroad.

"Very large sales of American woollen goods are being made at auction in New York, at prices far below their cost. It is perfectly settled that there are more woollen goods in the country than can be consumed the present year, and the manufacturers have wisely adopted the policy of stopping a portion of their works. A hard contest has commenced between the foreign and home manufacturers, which is as sure to result in favor of the latter as that the sun will pursue his wonted course. Although the money pressure has lasted more than ten months in this country, there have been no failures among manufacturers, while in Europe the failures have been for millions in the same time. These facts induce me to believe that the statement made by Mr. Lawrence, of Lowell, to Mr. Randall, (see 1st No. of *The Plough, Loom, and the Anvil,*) was not too strong, viz.: 'The business of manufacturing wool in this country is on a better basis than ever before, inasmuch as the character, skill, and capital engaged in it are such that foreign competition is defied.' This is strong language to be used in a country just starting into life in the cultivation of the useful arts."

From the foregoing it is palpable that the wool-grower must take his share in this contest. The low prices of goods, and suspension of a large amount of machinery, must reduce the value of wool below the cost of production. This is a temporary state of things, and we entreat the wool-growers not to do as they have formerly done in times of depression, break up their flocks and go into something else.

"Never give up," should be the motto of every American when engaged in a good cause.

Let them, on the contrary, set their shoulders to the wheel, determined *to take for themselves* the protection that is needed to enable them to compel the woollen machinery and the men who drive it to come and take their place by the side of their ploughs, and thus enable them to pay for their cloth in the spare, and now wasted, labor of themselves, their sons and daughters, their horses and oxen, their carts and wagons—and in potatoes, and turnips, and hay, of which the earth yields by tons—obtaining back from the consumer not only the cloth but the refuse of the products of the earth, by aid of which their poor lands may be made rich, while the rich ones are made richer by aid of careful cultivation and drainage.

Of all the labors of the farmer, there is none that would yield so largely as the cultivation of sheep, but there is none in which it is more necessary to have the consumer to take his place by the side of the producer. A steady

market for fresh meat would double the value of his flocks, but mutton is a meat that cannot be preserved. Beef, and pork, may be salted, but veal and mutton must be eaten where they are killed. Let the wool-grower then offer a premium to the mutton eaters of England, to come with their machinery and sit down by him, and he will, in a few years, make this country, as it should be, the great wool-growing, and the great wool manufacturing, country of the world, and then the necessity for protection will be at an end. Seeing what has been done, who can doubt that if the tariff of 1842 had been made the great national measure of the planters and farmers, the production and consumption of wool would be, even at this moment, almost double what it is.

There is not a wool-grower, nor a cotton-grower, nor a corn-grower, in the country, that would not pay towards having a road made to enable him to get to market in less time, and at less cost. Every man wants to get the consumer as near him, in point of time and expense, as possible, and yet the present policy of the country, advocated by both farmers and planters, is that of driving our present consumers to the west—there to become themselves producers—and replacing them by other consumers who are so distant that the cost of transport and exchange eats up the chief part of the product of labor.

Every man would pay for making a road by which to get his produce to market, *there to lose the manure, exhausting his land*—but when they are advised to bring the market to their sides, that they may *save the manure and enrich the land*, each man calculates how much his shirt would cost him at five cents a yard, and compare it with the six cents that he might for a time have to pay to the weaver in his neighbourhood, forgetting that when the consumer is on the land the land becomes enriched by his presence, because he enables the farmer to give his attention to the raising of those things of which the earth yields largely, whereas when he is at a distance he must be fed with those things of which the earth yields by bushels.

Wherever there exists a market for milk, and veal, and mutton, and eggs, and turnips, and cabbages, farmers grow rich. Let then the farmer labor to seduce the consumers of those commodities to come and take their place by his side. The loom and the anvil are the best aids to the labor of the plough.

THE MARYLAND INSTITUTE, FOR THE PROMOTION OF THE MECHANIC ARTS,

Announces to the public that its first exhibition of American manufactures will be opened at Washington Hall, in the City of Baltimore, on Tuesday, the 31st of October, 1848.

We further state that we will hold a Cattle Show and Fair, in connection with the Mechanical Exhibition, and that a suitable place will be provided for the exhibition of Stock, the Products of the Farm, Dairy, Garden, &c. Farmers, Planters, and Horticulturists are particularly requested to give their countenance and aid to this part of the enterprise. The exhibition of Stock, &c., connected with the Cattle Show will commence on Wednesday, the 9th November, and continue two days. The Ploughing Match will take place on Thursday, the 10th.

Adam Denmead, *Chairman.*

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We regret not having had our attention called to the above in time to give the whole programme of the Institute and its exhibition, accompanied with such remarks of feeble encouragement as it might be in our power to express. Two things are certain—the object is highly patriotic and praiseworthy—and so far, it is in the hands of working men; and if they do not command success, we will venture to predict *they will endeavor to deserve it.* We hope this institute may never dwindle into a stock buying, stock-jobbing concern, or swell into a soap bubble, which owes its elevation to its lightness, and which nothing but the power of self-puffing could keep afloat. Let them not open a great *omnium gatherem* or curiosity shop, to serve as a place of advertisement for all who choose to stuff it to overflowing, from year to year, with the same things—but let them appoint committees, of high-minded, honorable, *qualified* men, in no way connected with or interested in the Institute as a money or patronage concern; and let these committees report, fairly and rigidly, as to each department, whether there be, from time to time, any real bona fide valuable improvements in particular productions of mechanical and manufacturing industry; and *in what these improvements really consist.* We have no time or space for another word, except to wish the Institute, guided as this is by plain practical men, may meet with all the success they anticipate and more.

THE FARMER'S PROTECTION STILL TOO GREAT.

We invite the attention of the farmers and planters of the Union to the following, which we take from one of the leading "free trade" papers of the day.

"The fall business opens rather slowly. There are many Southern and Southwestern buyers in town, but they do not evince much avidity in making purchases. The supply of domestic goods is very considerable, and the assortments varied and desirable; but the supply of foreign goods is not so abundant—the importation being not so large in proportion to the business as was expected. *It may be, that even the present tariff is too high to act beneficially either for the revenue or the welfare of trade.* The exports of domestic goods from this port for August are 3087 packages, against 1863 last year."

With the closing of cotton-mills, and woollen-mills, and furnaces, and rolling-mills, the price of labor, and of cotton, and of wool, has fallen, and the power of consumption has diminished, and we are seeking in foreign lands a market for the goods that we cannot retain at home, and we *therefore* import less. The advocates of the existing system are disappointed, but they are unable yet to see that every increase in the distance between the farmer and planter and their customers, tends to impoverish the farmer and his land at one and the same time, and they think that they have not yet gone far enough. With another step, more mills and furnaces will be closed, and more men will be driven to the west to raise food instead of remaining at home to consume it, and food and cotton will become cheaper, and land will become more rapidly impoverished, and the power of consumption will be still further diminished, and it will then again be found that "the tariff is still too high." The whole of the present policy of the nation tends to impoverish the cultivator and the land he cultivates, because it produces waste of labor and manure, and yet its leading advocates are the planters and farmers, who would be enriched by the adoption, as a great national measure, of the policy of concentration.

DRAUGHT.

The powers of horses and other beasts of draught have been, especially in Ireland, applied within a few years with much more effect than formerly. The same description of horse which, twenty years ago, pulled 6 cwt. or 7 cwt. with difficulty in that country, can now draw 15 cwt. without any violent exertion. The great improvement which has taken place in the level and formation of roads has mainly contributed to this advancement in the application of animal labor, and to a pretty general knowledge among carters of the plainer principles of traction.

Much difference of opinion prevails, however, among scientific men upon mechanical points affecting the principles of draught, especially where four-wheeled carriages for a high velocity are concerned. In England, great prejudice prevails in favor of wagons of ponderous size, requiring teams of four, five, six, and eight horses. In Scotland, where economy is more consulted, and in Ireland, where want of capital prevents a vast majority of farmers from employing any description of cart, which is not cheap, simple, and fit for every turn of work, the one-horse, light, two-wheeled cart is almost universally used. The reasons severally urged by the advocates of the four and two-wheeled vehicle are as follows:

The favorers of the wagons of various kinds, so much in use in the southern parts of England, maintain that the horses, by working in team steadily together, though they may draw lesser loads in this combined way, last longer than if working singly under two-wheeled carts, which often press intolerably upon their backs, and shake them extremely on uneven roads.

"They insist, also, that those in the carts are, from their unvarying efforts, sooner tired, and the wear is consequently greater than in wagons, in which they can occasionally relieve each other; that the whole load being above the axletree in the carts, it throws so much weight upon the horse, in descending hilly roads, as to endanger his safety, while it equally impedes his exertions in the ascent; and that, while the one horse is compelled to use his utmost strength to overcome any sudden obstacle, the power of a team is, in a similar case, only applied to one half of the load, which, in the wagon, rests equally on both pair of wheels: thus supposing a ton to be loaded upon a cart, and that a short rut in the road is to be surmounted, the whole, being upon one axle, must be dragged out at once; but, were the same weight upon a wagon, it being divided upon the two axles, is drawn out at two separate pulls, the first of which clears the fore-wheels before the hinder fall in."

The advocates for carts contend—

"That there are but few articles, except long timber, which may not be conveyed on a carriage with two wheels equally as well as upon one with four; that single-horse carts are easier loaded and unloaded, handier for almost every purpose, and that six or eight may be driven by one man, with the assistance of a boy; that they are also less destructive to the roads than wagons, especially in hilly roads, where the wheels of the latter require to be locked; that they carry more in proportion than either wagons or carts drawn by two or more horses, and are consequently more economical."*

On heavy roads full of ruts, on very long journeys, and with full loads, wagons are probably most advantageous; but, in ordinary cases, and especially where quick movements are required, as in general farm-work, besides being expensive and a load in themselves, they occasion a great waste of draught power. The nearer that the horse is to his load the better, consequently the English mode so frequently practised, of yoking from three to five horses to a plough or wagon, in a line, one after another, is the worst possible. In proportion to the distance at which animals of draught are removed from their load, is the loss of power. It is hard, then, to understand upon what principles—they certainly are not mechanical—this extravagant waste of labor is systematically permitted. We are safe in assert-

* British Husbandry, p. 160.

ing that three horses, (supposing these in both cases to be of similar strength and form,) with Scotch carts, which are partly drawn and partly borne on the back, would pull as heavy a load as four horses would attached in line to a four-wheeled wagon. The loss of one in four has been ascertained at the collieries in Durham, when the horses were probably yoked in the more favorable manner of our mail-coach horses. The experiment is thus stated:

A two-horse cart carried - - - -	36 bushels,	weighing	29½ cwt.
A three-horse cart carried - - -	48 "	"	39 "
A four-horse wagon carried - - -	74 "	"	60 "

Whereas now a one-horse cart carries 24 bushels, weighing 19½ cwt., and travels twenty-six miles in twelve hours.*

The same principle applies in some degree to the case of two horses harnessed tandem to a Scotch cart; here is some loss of power: the two horses abreast would do more, and with perfect equality of labor, which does not hold in the other case, for, in descending a hill, the whole weight rests upon the back of the shaft-horse, while the other is totally relaxed; or, if the driver, through stupidity or drunkenness, allows the leader to pull, the tendency of his draught is to drag the other on his knees by increasing the pressure on it; when ascending a hill the leader often draws too much, while the shaft-horse declines from his pull, and on a level, if the leader be lower than the wheel-horse, his traces, instead of being in line with those of the shaft-horse, form a considerable angle, and tend to bear the load downwards on his back. If the cart be without a regular load, the driver becomes utterly careless, and perhaps allows a spirited and willing leader to draw the wheel-horse, the cart, and the driver, who falls asleep after his dose of whisky, as long as his energies permit.

Hence, although the fore-horse frequently throws the whole labor of draught upon the horse behind, yet, by exerting his force solely in pulling, without bearing any portion of the weight, and by the starts and jerks to which he is subject, he is almost always found to be more distressed on a journey, or by any continued work, than the horse on which the burden falls more constantly and equally.†

A horse of the Clydesdale breed was employed during fourteen years by Sir Charles Stuart Menteith in drawing coal wagons upon the ill-made turnpike road in the county of Dumfries, from Ayrshire to Dumfries. His usual load of coal was 35 cwt. in a common light-road wagon, weighing 13 cwt. He travelled twelve miles a day in four-mile stages. He never lay down during the last eight years, except twice, when he was sick. From the experience which Sir C. S. Menteith has had in the use of animal power upon common roads, he is of opinion that the most economical mode of employing horses in draught is to give every horse his own carriage, in order that he may depend solely upon his own exertions, as it is difficult to find either man or beast always willing, and capable of making uniform and continuous efforts.‡

Railroads (says Sir C. S. Menteith) of cast-iron, nine inches wide, somewhat concave, are laid down in the long ascent between the river Clyde and the Forth and Clyde canal at Glasgow, which enables one horse, in a single-horse cart, to draw from two to three tons, though the rate of ascent in some parts of it is one foot of rise for every fourteen feet of distance. This plan of railroad for ascents has been adopted at Glasgow more than

* British Husbandry, p. 160. † Low's Elements, p. 133.

‡ The same spirited and judicious proprietor also employs one-horse wagons, for his extensive lime works, which take three tons on a stage of three miles and a half, generally of gentle declivity, with occasional ascents of one foot in thirty, on which he has placed sandstone railroad, with iron plates, six inches wide, for the wagon wheels. The friction break diminishes the draught down any of the more rapid descents.

twenty years. If the employment of one-horse wagons, weighing 12 or 13 cwt., was adopted in conveying coal through the streets of London, one horse would do the work of two. At present four immense horses draw three chaldrons, or four tons one hundred weight of coal in a wagon weighing two tons, so that the shaft-horse is obliged to draw a weight of six tons in turning out of one street into another, which is the greatest cruelty a poor dumb animal can be subjected to. At the same time, railroads of cast-iron, similar to those in use at Glasgow, should be laid down for the wheels of carts or wagons upon the narrow streets from the river Thames to the Strand, which would enable one horse to draw two tons up these streets, instead of employing six horses, according to the present practice for drawing four tons of coals upon the same streets in their present state.

Where three horses are used, they should be yoked abreast, if the breadth of the road will permit. In ascending a hill, it is evident that the power of draught will be increased by drawing from the locality of the axle, and not from the forepart of the shafts; but, on a smooth level road requiring no effort to lift the wheels over any obstruction, (to overcome such, with any wheel-carriage, the inclination of the traces downwards, from the collar to the axle, will facilitate the effort,) horizontal draught is the best. The average description of road must of course regulate this point.

The French two-wheeled carts are extremely long and narrow, probably from being much used in the carriage of timber; these are, undoubtedly, more easily drawn than those which are short and broad. But, in France, owing to the wretched state of the by-roads and farm-lanes in winter, a team of seven (horses and oxen combined) in a row is yoked to draw a load of wood or a tonneau of cider to the market, weighing 35 cwt. only. The farmers contend that the lanes are frequently too narrow to permit two of the beasts to be yoked abreast, and, though this objection does not apply to the *roulages* (see *Carts*) on the great roads, the same injudicious system is pursued, and, if it were not for the admirable training of the excellent horses employed in this kind of work, and the general sobriety of the two carters who conduct the entire team, great and partial distress would be more frequently experienced by the cattle.

In either cart or plough, horses should have their necks perfectly free; the system of tight-bearing reins, even for coach horses, especially on ascending ground, is very questionable, and never pursued in France or Germany. In the former country, the horses are at full liberty to stretch out their necks as they please, and this freedom, in mounting a hill, or on a level, if the pull is considerable, greatly aids their efforts, by rendering their weight most available in traction. When they are thrown on their haunches by being reined up, their power of draught is more confined to their muscular action, and their weight of body does not tell.

The Germans in harnessing coach-horses fall into the opposite extreme from ourselves, for they tie down to the pole the heads of their wheel-horses, to make the utmost of their weight at a dead pull. The free action of the head and neck in heavy draught is very important; in slow and heavy farm work, there is no occasion for bearing up the horses.

In coach work, especially when the draught is light, there are strong reasons for keeping up the neck in an unnatural position, viz. to allow the driver greater power in rapidly directing the horses' movements, and to assist those of infirm limbs in keeping their feet.

The best composition for greasing wheels is that recommended by a celebrated French chemist, viz. eighty parts of grease and twenty parts of blacklead (plumbago) reduced to very fine powder, and most intimately and completely blended together. This is used at the French mint for locks, &c., and is surprisingly durable. A very small quantity suffices.

CHAPTER II.

On the Profession of a Butcher—The Patriarchs—The Priests and Heads of Families under the Law of Moses—The Greeks—The Romans—The Modern Jews—England—Edinburgh—Chester—Whether a Butcher may serve on a Jury in a Case of Life and Death—Whether the Employment be likely to influence the Moral character of the Man.

HAVING shown in the former chapter that it is lawful for man to take away the life of animals for his own sustenance, it is next to be considered by whom that life is to be taken away.

In the appointment of sacrifice by God, in the case of Adam on his transgression, he who had brought "death into the world and all our wo,"* must have been the first who took away life with his own hands. So, also, in the case of the sacrifices of Abel and of Noah. Whether any part of the victims, in these several cases, was eaten by the offerers, it is not stated. The first express mention of an animal killed solely as food, is when the three angels visited Abraham on their way to Sodom to destroy it, when "Abraham ran unto the herd, and fetched a calf tender and good, and gave it unto a young man; and he hasted to dress it. And he took butter and milk, and the calf which he had dressed, and set it before them; and he stood by them under the tree, and they did eat." (Gen. xviii. 7, 8.) Here, Abraham, who had, no doubt, been used to kill animals for sacrifice, was probably the *butcher*, the assistant *cook*, and the *servant* to wait upon his heavenly guests. In the case of Jacob and the two young goats, of which his mother made savoury meat for Isaac, to pass for Esau's venison, they were probably killed by Jacob. Do we, in these cases, feel any horror at this office of the patriarchs, and impute any cruelty of disposition to them?

Under the law of Moses, in the daily sacrifice of the tabernacle and the temple, the victim was sometimes slain by the priests, and sometimes by the inferior ministers; and, at the feast of the passover, each head of a family was at once priest to kill the sacrifice, and the butcher to slay for the food of the household.

Amongst the ancient Greeks, it was, likewise, the office of the priests to slay the victims for sacrifice, and of the head of the family or his sons to kill for food. Many instances may be found in Homer; as, where Agamemnon kills the lambs, the blood of which was to be the seal of the treaty made with the Trojans.

> And Agamemnon, drawing from its sheath
> At his huge faulchion's side, his dagger forth
> * * *
> He said, and pierced the victims; ebbing life
> Forsook them soon; they panted, gasp'd, and died.
>
> COWPER'S *Homer, Iliad*, b. iii. l. 301—326, 2d ed.

Again, when Nestor sacrifices to Minerva, his own sons kill the victims, cut the flesh in pieces, and broil it.

> The royal youths then raising from the ground
> The heifer's head, sustain'd it, while she pour'd
> Her ebbing life's last current, in the throat
> Pierc'd by Pisistratus, the Prince of Men.
>
> *Odyssey*, b. iii. l. 568—571.

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* Milton's Paradise Lost, b. i. 1, 3.

And, again, when Achilles entertained the messengers of the other Grecian generals:

> Achilles, then, himself
> Advancing near the fire an ample tray,
> Spread goat's flesh on it, with the flesh of sheep
> And of a fatted brawn; of each a chine,
> Automedon attending held them fast,
> While with sharp steel Achilles from the bone
> Sliced thin the meat, then pierced it with the spits.
> Meantime the god-like Menœtiades
> Kindled fierce fire, and when the flame declined,
> Raked wide the embers, hung the meat to roast,
> And taking sacred salt from the hearth-side,
> Where it was treasured, shower'd it o'er the feast.
> When all was finish'd, and the board set forth,
> Patroclus furnish'd it around with bread
> In baskets, and Achilles served the guests.
>
> *Iliad*, b. ix. l. 350—364.*

The same practices also prevailed amongst the Romans.

At what period the office of killing animals for food became a separate trade, it may be difficult, if not almost impossible to determine: probably at different times in different countries, and in different parts of the same country. It is the province of ***civilization*** to make trades or professions; for, as the wants, either real or imaginary, of men increase, and there is a greater demand for any article, it becomes expedient for persons to confine themselves to fewer objects, by which means much time is saved, and business is executed with the greater nicety. Thus, in any district, or town, or parish, it is better for one man to confine himself to make clothes, or shoes, or to make houses of stone, or brick, or wood, or to kill animals for all the rest, rather than for each person, or each head of a family, to practise all these employments. Thus, no doubt, arose the first ***butchers***. And, from killing for others, they might soon get to kill their own animals, to sell out in small portions to such persons or families as might not be able to use a whole animal while it was good.

In 1 Cor. x. 25, we hear of meat being "sold in the ***shambles***." The word ***makellon***, which is here translated shambles, is formed from the Latin word ***macellum***, which signifies "a ***market***-place for flesh, fish, and all manner of provisions, a shambles, a butcher-row." (Ainsworth's Dictionary.) "If we recollect that Corinth was at that time a Roman colony, we shall cease to wonder that a public place in that city was named in imitation of the Latin ***macellum***, and that St. Paul, in writing to the Corinthians, should retain the use of a word, which in that city had acquired the nature of a proper name." (Parkhurst's Greek Lexicon.) "The original of the name is said to be this:—One Macellus, a very wicked and profane man, being condemned to die, a place was built in his house by Æmilius and Fulvius for selling provisions, and from his name it was called ***macellum***. Into these places the priests sent to be sold what was offered to their idols, if they could not dispense with it themselves, or thought it not lawful to make use of it.† Herodotus says, that the Egyptians used to cut off the heads of

* See, also, *Odyssey*, b. xiv. l. 58, &c., and l. 504, &c.

† This is the practice with the modern Jews; when they have killed a beast, and find it unclean according to their own laws, they sell it to Christian butchers for general sale.

A little before the overthrow of the papal power at Rome, in February, 1797, "the Jews held a synod at Leghorn, in which the Rabbies of all the several cities throughout Italy agreed, that their Sabbath should be kept on Sunday, that their people should eat pork and other meat killed by Christian butchers, that their beards should be shaved, that married women should wear their own hair, and that the different tribes should in-

their beasts that were sacrificed, and carry them into the market to sell to the Greeks; and if there were no buyers, they cast them into the river." (Gill, quoted by Burder in his "Oriental Customs," vol. 2, p. 365.)

Among the ancient Romans there were three kinds of established *butchers*, namely, two colleges or companies, composed each of a certain number of citizens, whose office was to furnish the city with the necessary cattle, and to take care of preparing and vending their flesh. One of these companies was at first confined to the providing of hogs, whence the member of it was called *Suarius;* and the other was charged with cattle, especially oxen, when the member of it was called *Pecuarius* or *Boarius*. Under each of these was a subordinate class, whose office was to kill, prepare, &c., the member of which was called *Lanius*, and sometimes *Carnifex*. The market-day was every ninth day. Brissonius, Modius, and others, mention a pleasant way of selling meat, used for some ages among the Romans: the buyer was to shut his eyes, and the seller to hold up some of his fingers; if the buyer guessed aright, he was to fix the price; if he mistook, the seller was to fix it. This custom was abolished by Apronius, prefect of Rome; who, instead thereof, introduced the method of selling by weight. Nero built a noble edifice at Rome for the shambles; on which occasion was struck that medal, whose reverse is a building supported by columns, and entered by a perron of four steps; the inscription MAC. AUG. S. C. *Macellum Augusti Senatus-consulto.* (See Chambers's Cyclopædia.)

Miss Starke, in her "Letters from Italy," speaking of the present times, says, "I have frequently seen the Tuscan cattle, when destined for slaughter, adorned with chaplets of flowers, precisely as the ancients used to adorn their victims for sacrifice. The Roman butchers, likewise, still wear the dress and use the knife of heathen sacrificing priests," vol. 2, p. 11.

Amongst the modern Jews, to exercise the office of butcher with dexterity, is of more reputation than to understand the liberal arts and sciences. They have a book concerning shamble-constitution; and, in case of any difficulty, they apply to some learned rabbi for advice; nor is any one allowed to practise this art, without a license in form from the high-priest, which gives the man, upon examination, and evidence of his abilities, a power to kill meat, and others to eat what he kills; provided he carefully read every week for one year, and every month the next year, and once a quarter during his life, the constitution above mentioned. (See "The Encyclopedia Britannica," art. Butcher.) Communicated, also, by a learned Jew rabbi of the present day.

Of the history of butchers in England, the writer, after some investigation and inquiry, has been able to learn but little. The laws relating to them, which form a part of it, will be given in a subsequent chapter, assigned to that purpose.

The butchers were incorporated by King James the First, under his letters patent, bearing date the 16th day of September, in the third year of his reign in England, (1606,) and of Scotland the nine and twentieth. They were incorporated by the name of *Master, Wardens, and Commonalty of the Arts or Mystery of Butchers of the City of London*, the fraternity

termarry with each other: thus were the most material articles of the Jewish law dispensed with; while the Grand Seignor (if I am well informed) annulled about the same time many of the laws of Mahomet. These circumstances, united with the fall of the popedom, furnish the thinking mind with ample scope for reflection."

Miss Starke's *Letters from Italy*, 2d edit., vol. 2, p. 140, note.

being very ancient.* (See Strype's edit. of Stow's Survey of London, &c., vol. 2, b. v. p. 211.) It is the twenty-fourth in rank among the livery companies, and is governed by a Master, four Wardens, elected annually, sixteen Assistants, and one hundred and ninety-three on the Livery. They have a very handsome hall, the inside of which is finely wainscoted, in Pudding Lane, near the Monument. Their arms are *azure*, (blue,) two Axes *saltierwise*, (in the form of St. Andrew's cross,) *argent* (silver) between three bull's head *couped*, (cut evenly off,) *attired or*, (with the *horns gold*,) a boar's head *gules*, (red,) between two *Garbes* (*wheat-sheaves*) *vert* (green.)

At Edinburgh there is a company of butchers, or *fleshers*, which is the tenth of the fourteen incorporated companies of tradesmen, out of which the fourteen deacons are chosen, which form a part of the town-council, and out of which one of the commissioners for parliament is chosen, and out of which the Lord Provost may be chosen. So that a butcher at Edinburgh may arrive at the highest civil honors.

There was a company of butchers at Chester in the year 1328, since, from the Harleian Manuscript of the Chester Whitsun Plays, in the British Museum, it appears that *The Temptation* was played by *the butchers*.

It seems to be generally understood, "that our legislature has affixed such an imputation of proneness to shed blood upon persons who slaughter brute creatures for a subsistence, that by the laws of England no butcher is permitted to serve on a jury when sitting on the life of a fellow subject." ("Pantalogia," art. Butcher. See also Tryon's "Way to Health, Long Life, and Happiness," vol. 1, p. 348. "Domestic Encyclopedia," art. Butcher. "Literary Miscellany," No. 18, p. 49.) Mr. Young, in his "Essay on Humanity to Animals," seems to think it to be the general opinion, that a butcher should not be admitted as *evidence* in a case of life and death: "It seems to be a very general opinion, that the English law will not accept the evidence of a butcher in any trial wherein life is concerned, under the idea that butchers are, from the nature of their business, apt to be rendered less feeling and humane than other classes of men." He seems to acquiesce in this judgment; but adds: "This opinion, however, respecting the evidence of butchers, is, I believe, a vulgar error; but it serves at least to show what is the sense of a great number of persons upon the subject in question," (chap. i. p. 5, 6.) Both ideas, I believe, are erroneous; for I cannot find any thing of the kind in Burn's "Justice," under either of the articles, Butchers or Jurors.

Thus far, then, the way seems to be cleared before us. But it is well worthy of consideration, whether there is any thing in the employment of a butcher which really tends to dispose the mind to cruelty, either towards man or beast. Tryon, in his "Knowledge of a Man's Self," &c., which is the second part of "The Way to Long Life," &c., p. 335, says, "Butchers, whose employment is violent, bloody, and cruel; which practices, actions and motions of the human body, by the repeated strokes of violence, and by the conversations† of their school-fellows in all base lessons, language, and methods; never fail to stamp the signatures of brutality and inhumanity,

* The Butcher's Company was fined as "adulterine (that is, being set up or instituted, without royal license) in the twenty-sixth of Henry the Second; that is, in the year 1180. See BRAYLEY'S *London and Middlesex*, vol. 2, p. 343—419.

† At an ordinary, at a public house in a market town, frequented by a butcher known to the writer of this, at which about eight butchers and two tanners, besides other persons, are occasionally present, there is a rule, that, whoever makes use of an *oath* is to forfeit *sixpence*. In upwards of a year, the butcher mentioned above never heard but one oath sworn there, and that was by one who did not usually dine in that room.

and diffuse their own propertys to the intellectuals, so that the invisible qualitys are infected, and the spightful envious powers advanced to the government, and are forthcoming on all occasions, as is manifest by their common discourses and ordinary conversations. And it is for the same reason, that not only this trade, but all employments which communicate with and handle gross unclean materials, or that frequently oppress any of the inferior animals: the practicers thereof are sure to have all their sanguine, soft tempers sully'd; such know nothing of the planissing hammer or its uses; but, like anchor-smiths, do all by the fierceness of fire and laborious violent strokes. The next trade or employment concerned about the dead bodies of the creatures are the tanners, whose business it is to make their skins useful. These tradesmen are but one degree above butchers: they are for the most part bold, gross, and unclean in their methods and orders of life, much like the materials and things they work in, handle, and communicate with.* Now, the next beautifying trade belonging to the skins of beasts, are the leather-dressers of various sorts, according to what skins they are, as curryers and those traders who are one degree before the tanner, because they are the second beautifyers. However, these are a surly, bold, impudent sort of people, much like the original matters they are employ'd in, and the ingredients they use in their art. The next sort of tradesmen are still higher graduated, as shoemakers,† glovers, and all other small arts belonging to the said trades," &c.

That a person's occupation, and the objects by which he is surrounded, and the light in which he is accustomed to see them, that is, the thoughts with which he contemplates them, have much influence upon his disposition and character, I believe to be very true. But these, if of an unfavorable tendency, may be counteracted by other objects, by other pursuits, and by other thoughts, and, above all, by religion, by bringing every thought, word, and work, in subservience to the will of God. That the occupation

* In Acts ix. 43, and x. 6 and 32, we find that Peter, when at Joppa, lodged and tarried many days with one Simon, a tanner. Peter, therefore, did not think this man objectionable on account of his business, but, probably, selected him for his host on account of his being a Christian and an eminently pious man. Christ's instructions to his disciples in what kind of houses they were to abide, when they went on their missions, (Luke x. 5—8,) will give us an idea of what must have been the house and character of Simon. Let it be observed, also, that it was at the house of this tanner that Peter had the vision of the vessel full of all manner of living things, and when the *voice from Heaven* said to him, "Rise, Peter, *kill* and eat," (x. 13.)

† The fraternity of shoemakers have certainly given rise to some characters of great worth and genius. The late Mr. Holcroft was originally a shoemaker, and, though he was, unhappily, at the beginning of the French revolution, infected with French principles, yet he was certainly a man of great genius, and, on the whole, a moral writer. His dramatic pieces must rank among the best of our English dramas. Robert Bloomfield wrote his poem of "The Farmer's Boy" while employed at this business, and, for modest worth and humanity, the members of any profession might feel happy in the acquaintance of the shoemaker and the poet.

Dr. William Carey, Professor of Sanscrit and Bengalee, in the College of Fort William, Calcutta, and the able and indefatigable translator of the Scriptures into many of the eastern languages, was originally a shoemaker in Northamptonshire. Having, in early life, a taste for reading, he cultivated it with considerable success, and being particularly expert at learning languages, he bent all the force of his mind to that pursuit, and made himself acquainted with the Latin and Greek, and several modern languages, before he went to India; where, by pursuing the same course of unexampled assiduity and success, he has well entitled himself to the honourable appellation of "Father of the Oriental Versions," (see the Fourth Report of the Cambridge Auxiliary Bible Society, 1815,) as he has had the merit of giving the "*first impulse* to the great work of the translation of the Scriptures now carrying on" with so much success in India, as well as of contributing more than any other individual to the continued progress of this noble work. See "*A Sermon on the Nations imploring the Word of Life*," by the Rev. John Scott, of Hull, 1811.

of a butcher has not too frequently a tendency to harden the disposition, I will not pretend to deny; but that it is of a worse tendency than many others, which are not held in equal abhorrence, I can by no means grant; and the example of many most respectable and humane butchers is a proof of it. The cries of the animals, and the sight of agonies and of the effusion of blood, make the greatest impression upon minds guided by feeling rather than by principle; but

> the poor beetle that we tread upon,
> In corporal sufferance finds a pang as great
> As when a giant dies.
>
> SHAKSPEARE'S *Measure for Measure*, Act iii. Scene 1.

And he who kills the smallest bird, or the most minute insect, perhaps, occasions as great a portion of pain to the object, as the butcher who kills an ox. Those, therefore, who live upon what they call vegetable diet, must not flatter themselves that they do not destroy animal life, since almost every vegetable abounds with insects, though perhaps too minute to be seen without a magnifying glass.

The Hindoos, for the most part, live on vegetables, that they may not take away life. A story is told of a Hindoo, who obtained a microscope from a European; and, on looking through it at some article of his food, destroyed it. On being asked his reason, he said it was to prevent himself, or any one else, seeing the animals it had discovered to him.

The author of the "Literary Miscellany," No. 18, puts the surgeon on the same footing with the butcher, and supposes that he is equally excluded from serving on juries. With respect to this point, the surgeon is excused from serving on juries, as he is from serving the offices of churchwarden and overseer, on account of his useful and uncertain profession, being liable to be called upon at any moment, on cases of the greatest humanity and exigence. As far as my experience goes, I have no scruple in saying that some of the surgeons I have known have been amongst the most humane of the human race. In respect to the butcher, let us appeal to facts. It is said that his shedding the blood of animals will dispose him to shed that of his fellow-creatures. Have the greater part of the murders committed in this kingdom, within the memory of man, or within the scope of records, been perpetrated by butchers, to justify the assertion or the supposition? Do the Newgate Calendar, and the various calendars of prisoners, if preserved by the various clerks of the peace for our several counties throughout the united dominions, record more names of cruel butchers than persons of any other profession? Have more murders been committed by butchers than by soldiers or sailors, whose profession, unhappily, leads them to the shedding of human blood? Yet that does not prevent our considering a soldier or a sailor as the tender friend, the humane citizen, and the polished gentleman. What shall we say of the duellist, the gentleman, the man of honor, who can go out in cool blood, take away the life of his friend, and be afterwards received in civil society? If a butcher is not fit to sit on a jury in a case of life and death, what shall we say of the counsel who pleads against the prisoner, the jury who find guilty, and the judge who condemns? If the occupation of a butcher be cruel, what are we to say of those who set him to it, who purchase his meat so cruelly slaughtered, and who send their animals to him to be slain? It is a maxim in law,

> Qui facit per alteram, facit per se.

"He who does a thing by another does it himself;" and, in a case of murder, he who is privy to it, is considered guilty as well as the perpetrator. What shall we say of the fishmonger, who cuts up some of his animals alive, merely to make them, as it is supposed, taste better?

AGRICULTURAL CLUB OF NEWCASTLE COUNTY.

We have often said, and oftener thought, that these sociable monthly meeting clubs at each other's houses are attended with more active and better influence than annual shows, where many men come more from idle curiosity and to hear what is going on in the political world, than from any hope or desire to receive or impart information. In fact, the greater part come from a distance, and go too soon to admit of much inspection or deliberation.

We had lately the pleasure to meet the agricultural club of Newcastle County at the residence of that exemplary farmer Mr. Sauder, and know not when we passed a day so agreeably. His farm of 150 acres is distinguished for the great length and beauty of its hedges, as well as for the heavy crops of grain it produces, and for good management—twenty-five bushels of wheat to the acre is not uncommon with him, at least has been repeatedly reaped. His land now being made ready for sowing, waiting for one more harrowing before it is seeded, is in much better order and finer tilth than many of what are called "garden spots" in some States, but as we hold it to be more friendly to indicate defects than to bespatter with praise what every one ought to accomplish, we may, without offence we hope, notice the *absence of an ice-house*, which if once a man enjoys, brings with it so many little nameless comforts, that he could never afterwards live without it. And again, there is a defect *almost universal*, but in this case the more unavoidable because the barn was already built to his hand, when he bought the farm. We allude to the common construction under which the litter is taken from the barn, and exposed in the open air to sun, wind and rain. Every man, who has a barn to build, should so construct it as to have his horses and cattle above the stercorary or manure heap. Into that, all the litter should be thrown and all the urine find its way. There it should be kept free from light and air, and in circumstances altogether the most favorable to putrefaction. For what these circumstances are, see Doctor Baldwin's interesting communication in this number of *The Plough, the Loom, and the Anvil;* and for an exemplification of the principles of construction here recommended, see, if you have a chance, Mr. Webster's stables at Marshfield, or otherwise in the barn at Mr. Newall's near Boston, which, above all we have seen, is most perfectly arranged for plainness and simplicity in the structure itself, and for the greatest attainable economy of space and labor, in stowing away and in administering the food and the manure. There is in neither case, we believe, a *tank* for saving the liquid manure, but there is constantly provided in the right place the various materials for catching and absorbing it. The senior Editor of this paper has had the honor to be unanimously elected a member of the Newcastle County Agricultural Club—to the announcement of which he very briefly returned his grateful acknowledgments, adding, that though he had opened the way, as a feeble pioneer, thirty years ago, such had been the progress of knowledge in all that practice has developed, that now he felt satisfied that what the planter and the farmer most needed was *The Loom and the Anvil* near the *Plough*—that is, consumers numerous and thriving to ensure a steady demand for the products of the plough; and secondly, what they have a right to demand from the government was as much for scientific discipline of the *laborer* of the country, as is now given for scientific instruction in the art of human destruction. What the effect of this last was, he said, had been testified by General Jessup, a man of wide experience and admitted abilities, who had publicly declared, that by means of the officers instructed at the expense of the people, the whole militia of

the United States might be converted in sixty days into well-disciplined soldiers—and why, asked Mr. Skinner, might not science do as much for the great, beneficent and all-supporting art of agriculture? Because, said he, agriculturists have not the thought and the courage to enforce upon public men the primary attention due to the agriculture of the country. Hence among other shameful instances of the disregard of the plough, we might refer to the fact that the agricultural committee of the Senate, on which little Delaware had the honor to have a member, never held a single meeting during the last session of Congress!

The meeting passed very pleasantly, and adjourned to hold their next at Mr. Bryan Jackson's near Newcastle. We may add, without being invidious, that the party was animated and enlightened by the presence of that indefatigable veteran in the cause, Doctor J. W. Thompson, whose name and zealous exertions are associated with the wonderful progress of agricultural improvement in Delaware above all other States, as we think we may aver—and of that brave soldier in the same march—him of "wheat lands," whose word is ever, not go boys, but come boys. He also now buys and uses *tons of guano*, where once he could not buy a horse collar—and all by *thought*—and by *action.—Mem.* He takes and *reads* the agricultural journals.

At the meeting of the Agricultural Club, as above mentioned, at Mr. Sauder's, the following testimony was adduced in favor of

PENNOCK'S DRILL AND THE ADVANTAGES OF DRILLING OVER BROADCASTING.

Reedsville, Mifflin County, Pennsylvania, July 21, 1848.

S. and M. Pennock:

GENTLEMEN,—I have this day threshed and measured the wheat grown on an acre of land, one half of which was drilled with one of your machines, the other half was sown broad-cast and harrowed in the usual manner. The result is as follows:—the half acre drilled 1¼ bushels seed per acre, 13 shocks measured 12 bushels and 2 quarts. Half acre broad-cast 1¾ bushels seed per acre, 8 shocks measured 7 bushels 18 quarts.

The quality of the ground was exactly the same, and treated exactly alike in every particular previous to seeding.

Difference on the half acre in favor of the drill 4½ bushels, added ¼ bushel saving of seed, makes 4¾ bushels more than broad-cast.

Yours, very respectfully, ABNER THOMPSON.

We the undersigned were present and saw the land measured, cut the grain, and assisted in threshing the same. And do hereby certify to the correctness of Mr. Thompson's statement

James Reed.	H. G. Morris.	Alexander Reed.
D. C. Miller.	William Steeley.	Geo. Ashby.

We cannot put our hand at the moment on the account of Doctor Charles Noble's experiment in Delaware, with the drill against broad-casting—but the result was about as follows—he having taken the precaution to weigh the wheat and the straw. He got eight bushels more from the acre of wheat drilled at the rate of 1¼ bushels of seed than from the acre of broad-cast on which two bushels had been sown—with less weight of straw from the drilled acre—and this result is, we understand, in correspondence with the experience of Major Jones, of Wheatlands. From others who may have made trials we should be glad to know the results. We have now done our duty by giving both sides. After all, as we have said, the consideration of *more farmer-like* appearance, suggested by Major Jones, ought to have and will have its weight with every man who entertains that ambition for excellence in his profession, which is itself a strong guarantee of success, and at least a proof of what all men of right mind will covet—a character *for deserving success!*

IN WHAT DOES GOOD FARMING CONSIST?

PREMIUMS have been offered by societies for essays which shall best point out *how to make poor land rich.*

To us this proposition seems to be almost as vague as it would be to ask for precise rules to estimate the cost of a house, without saying whether it was to be of wood or stone, or knowing the abundance or scarcity, distance or proximity of the materials, and cost of labor. So much depends on circumstances, and these are so undefinable, that means may be recommended, accessible and expedient for one, that it would be folly for another to employ. Yet there are some general maxims applicable under all circumstances, but these again are so obvious that it requires neither premium nor penetration to discover them; as, for instance, may it not be affirmed at once that the requisites for good farming, and for fertilizing land, consist in—1. Divesting the land of all *superfluous* moisture. 2. In the application of an adequate quantity of fertilizing substances; and, 3. In good tillage, to let in air and the necessary moisture, and to keep down weeds and all extraneous growth, so that the strength of the land and the power of the manure may be exclusively appropriated to the crop?

Such are the great leading principles of all good farming. But when you come to details, and begin by laying down a certain prescription, to which, as to the bed of Procrustes, every tiller must conform, without reference to the infinitely various circumstances that belong to different men, you cannot take a single step before you are met by the fact, that, as the man says in the play, "circumstances alters cases." One doctor, without examination of the symptoms, and of the means at hand, prescribes doses of lime, at a rate more or less according to a vague description or estimate of the condition and quality of the land, and without knowing whether it does not possess already enough of that ingredient, its unproductiveness being the result of deficiency in other essentials. The poor man goes in debt to buy lime, of which the land had enough already, his crops continue to fail, and he is ruined, because the doctor did not know all the symptoms of his case.

Another doctor orders barn-yard manure, and it is applied accordingly; but being made of wheat straw merely passed through the body of his cattle, it comes out as worthless as it went in, and his land being yet deficient in lime and other essential elements of fertility, his crops continue to fail, and he again is ruined.

Thus it happens, as it has often happened to the letter, that "doctors differ and the patient dies."

Each case must depend on its own circumstances, and to arrive at any thing like certainty, these must be defined. The farm must be described in its general geological features, and in its locality and natural resources, especially how far from the place for selling its produce, and what the modes of conveyance, and the means of the owner are, &c. Is lime at hand or distant, suppose the land to need it? Can manure be bought, and at what cost of time, labor, and money can it be made available? or are the means at hand, such as marsh mud, marl, &c., to make manure? How can any essayist lay down his rules for the government of any individual farmer, without reference to all these things? Hot water and bleeding may do in some cases, but not in all. How many victims perished because Doctor Sangrado's pride would not let his practice run *counter to his book?* Not a book on making poor land rich, but on what, in like manner, and no more, depends on the symptoms and circumstances of each particular case, viz. on making a sick man well. But as a general rule—one

which may be laid down as of universal applicability—such as will always be followed with results that may be considered natural, and alone worthy of regard, for making poor land rich, is so to shape the policy of the government, as to draw the Loom and the Anvil—the hatters' shop and the tailors' shop, the tanner and the shoemaker, and all the mere fashioners and consumers of agricultural produce, as near as possible to the Plough!

Insure consumers able and willing to buy, and so near that the farmer shall lose little in the work of transportation and exchange, and the wants of the living men, women and children, will be sure to bring the food out of the ground. A thousand bulky and perishable articles will be needed, that the land would produce, if the market were in reach, and the land and the land-owner will grow rich together, and with wealth will come schools and increase of knowledge, which is power, and with improved knowledge, again will come improved farming, as is seen in Scotland, ay, and all the countless refinements and blessings that belong to the most advanced civilization.

Here then is the way to make poor land rich. But, how are the consumers to be drawn near to and around the producer? Certainly not by sending our raw materials away to other and distant countries, to be manufactured there by people who consume the products made by the slaves and paupers of European despotisms? Does it not follow from all this that agricultural societies and institutes, *organs* of the landed interest, when inquiring into the condition of the farmer and the planter, should go a little deeper into the subject, and look for the *law*—the principle—that governs the case? As for taking a specific ten or ten hundred acres of land to make them rich, every one knows, that for ***such as have the means***, the way to improve poor land is by thorough draining, heavy manuring, and good tillage, but without strong assurance of a remunerating market, our lands will be neither thoroughly drained, heavily manured, nor well tilled. Look at the rich swamps and forests undrained and uncleaned in Virginia and the Carolinas, where all are producers, and no consumers, except at a ruinous distance!

Since writing the above, we find in that excellent old paper, *The American Farmer*, for which, in its infancy, we maintained correspondence with such men as Madison, and Jefferson, and Taylor, and Garnett, in the South, and Quincy, and Pickering, and Lowel, and Parsons, in the North—in it we find the following from a man with whom farming is a pursuit of honor, because he makes it *one of intellect!* not of mere habit or routine.

"I see you have offered handsome premiums for the best essays upon the improvement of worn-out lands, their length not to exceed ten pages of the American Farmer. If I were to enter the lists, (which I shall not.) mine would be comprised in less than ten lines. I would recommend one hundred cart-loads of compost, made from the stable or cow-yard, or one hundred cart-loads of marsh mud, from a salt-water river, which I deem equally good, and five hundred bushels of shell marl from a marl bank, the properties of which had been proved, to the acre. My friend, Mr. Maddox, of your post-office, was here on a visit last summer; he saw corn growing on my lands which had been marled twenty years ago, and deemed it equal to the improved lots around Baltimore."

One hundred cart-loads of compost to the acre, says Judge Carmichael—that would be, for, say twenty acres, (a small corn-field for Maryland,) two thousand cart-loads; now to make two thousand cart-loads of compost would require how much labor? how many cattle? And then for the marsh mud—suppose a man has no marsh, and how many have?

Another correspondent of the same journal, on the same subject, says:

"Some time ago it was stated in the papers that the American Peace Society had offered a considerable sum as a premium to the individual who would favor the world

with an essay on the origin and cause of the late war with Mexico, and the probable result. An individual put in boldly for the prize as follows, with what force of reasoning, I do not pretend to determine.

"1st. Origin and cause of the war—Texas.

"2d. Result of the war—Taxes.

"Now, friend Editor, in noticing the very liberal premiums offered for the best essays, not to exceed ten pages in length, on the renovation of worn-out lands, I was induced to believe that one might be prepared not quite so brief as the above, but contain the whole matter, as it were, in a nutshell—something like the following:

"Borrow some money if you can; if not, sell a part of your land, for money you must have as a starting point to renovate worn-out land.

"Clear your ground of all bushes and stones.

"Plough thoroughly and reduce it as much as possible.

"Then put on lime at the rate of fifty bushels per acre for corn.

"Then bone at the rate of ten bushels per acre for oats.

"Then guano at the rate of two hundred pounds per acre, with all the manure that can be made from the fodder and straw for wheat.

"Give it a liberal supply of grass seed, and the thing is done, as I know by

EXPERIENCE."

"Experience" has hit the nail on the head. Money is wanted, in the first instance, and, if employed with equal judgment, will tell as well in farming as in other things; but how is that to be had? There's the rub! How can you raise money on land where, as in Virginia, all are sellers and no buyers? The way to raise it is this: Concentrate population around the plough, as in New England, where men clear a ton of stone from six feet square of land, to plant their orchards, and to make potatoes and carrots, and where $2000 of public money lay for years to be loaned at six per cent., and found no borrower. That's the way to improve poor land.

Let the hundreds of millions we import be manufactured at home, and then the farmer and the planter will be sure to *sell* to those of whom he buys, and both will be done at an immense saving in the cost of transportation and exchange.

THE CALAMITIES OF WAR—ON WHOM DO THEY FALL?

IN the name of heaven, what can this subject have to do with Agriculture? Such, no doubt, is the query that will be propounded by many sincere individual friends, as well as most societies formed for the *promotion of agricultural improvement*. If in fact we were to judge from the indifference manifested by such societies, as to the legislation and the burdens of government, we might conclude, that, in their opinion, the people who follow farming and planting for a livelihood have nothing to do but to learn how thick to sow, and how wide to plant, and for the rest, stoop to the burdens imposed on them, and go their way like asses or mules, wherever their rulers choose to ride or drive them.

Nine-tenths of the people in the country, laboring at the plough, probably believe, at this moment, that they are not *paying one dollar* of tax to keep up the costly military and diplomatic establishments of the government, merely because a tax-gatherer does not make his regular visit, with a bill of particulars, and threaten to execute his horses or his wagon if he does not "down with the dust." How then does he suppose the sixty millions of dollars for the war debt, and the fifteen millions annually for army and navy, and thousands for *navy and army schools*, are to be paid? Do these millions of money rise, does he suppose, like fogs or mushrooms, out of the ground, or descend like dews from the heavens? Would it be honest in us, under the persuasion we feel, not to advise the cultivators of the soil, that four-fifths of these millions, think what they may, come *out of their pockets*, and would remain in their pockets were these debts not incurred? It is the humbuggery of indirect taxation that lulls him into ignorance of

what he really pays. And what, after all, does the farmer and planter get by war? Is not *that* a proper question for agricultural societies? Instead of having nothing to say or do with politics, it is exactly in such societies that the *bearing of the laws on the landed interest* should be discussed, unless it be true that rulers, lawgivers only, should be enlightened, and the ruled kept in ignorance! We don't mean miserable party politics and scrambling for place, but the politics that *belong to and bear upon the plough.* The question, for example, whether the laws should encourage the fabrication, in this country, of the raw materials produced in the country, so that the proportion of consumers should be constantly increasing in relative numbers to the producers? The question whether the art of cultivation may not be as much benefited by government appropriations for appropriate instruction in that, as the *art of war* has been improved by the same means; and whether the former would not much more conduce to the solid prosperity and true glory of the nation than the latter? Why are not these proper questions for societies organized for the express purpose of looking after, guarding, and promoting the landed interest of the country? Nothing but the cowardice that is generated by ignorance and the habit of submission to wrong, prevents such questions from being entertained, until the true foundations of agricultural rights and prosperity are understood and established.

Of the effects of war, its character and consequences, a picture lies before us, sketched by a master-hand, which our conscience tells us, as the friend of agriculture, we ought to exhibit to our readers of *all* parties, for in our labors to bring into juxtaposition "the Plough, the Loom, and the Anvil," and to show their mutual and friendly connection with each other, we profess to be of *no party* but the *party of the plough.*

PICTURE OF WAR.

"One of the most Christian of modern poets, Cowper, has finely said:

> War is a game at which, were subjects wise,
> Kings would not play.

"This thought, however just, was by no means an original one; for in all ages the truth was plain, that kings and the great only are the gainers by wars, and that the more successful they are, the more do they ruin the mere people, whose substance and whose lives they waste only to enslave them. Such is, to the body of a nation, the sole consummation of successful enterprises against their fellows; so much havoc as they allow their government to commit upon the wealth or lives of other communities, so much do they fling away of their own; and just so far as they lend their strength to ambitious rulers to subjugate other countries, just so far do they arm those conquering rulers with power to be the scourge of their own freedom. It is an unfailing retribution, which the Almighty himself has appointed; the plague which he sends to punish, not princes or presidents, but the still guiltier populace, who, instead of sympathizing with those of their own condition, on whom everywhere falls the weight of war and its woes, have wickedly lent their strength to afflict and enslave their innocent fellow-men, the poor inhabitants of some weaker country. Then it is that, making war itself, and the slavery which it draws after it, his vengeance, He turns to his instruments and executioners, the bad kings or magistrates whom a criminal people have armed for the wanton destruction of humankind. It is the people who are, in all such cases, guilty, for what can even kings do if their people choose to gainsay it? But great as is their crime, their folly, everywhere, when they permit needless wars, that folly and that crime are of course greatest in the citizens of a free, a popular government, who,

happy themselves, can have no excuse for going abroad to distress others, and, free themselves, should know how dreadful the offence when they strike at the independence of other nations.

"Of all republics war is the bane. It stops all arts but those of destruction, all industry but that of death. The husbandman quits his own happy field to ravage a foreign one, or perhaps manure it with his blood. Public works are suspended; all private improvement ceases; trade declines; the laws must learn to be silent; morals are forgotten; religion hides her face. The whole of a people must cease benefiting themselves or others, and apply the entire public force to injuring another nation. Meantime, while profitable industry has lessened, taxes have grown, yet, grow as they may, they never fail to leave a long arrear of debt, the poor man's only share of glories for which he perhaps bled, and his sons shall sweat—glories which, in reality, seldom consist, for the nation itself, in any thing more than the Christian thought that they have desolated and destroyed quite as much as they have been desolated and destroyed in return. Add to all this, idleness, licentiousness, lawlessness, and that horrid *taste for human blood*, which nations, like wolves, contract, when once they have lapped it. Let any man consider of all this, and then, figuring to himself all this, deepened and deepened, by war after war, conquest after conquest, into one wide habit and rage of national rapine and slaughter, let him, if he can, think coolly of an American statesman who can preach to us this detestable career as that which we must run, and can strive 'to prepare the hearts of our people' for this execrable policy."

HEMP.

WHAT is the condition of and prospect for this branch of American husbandry?—What is needed in the way of implements and processes for cultivating and preparing it, and in legislation for ensuring a market?—Will Mr. Anderson please give us a memoir on the subject—who better, if so well, qualified as he or Mr. Sanders?—What has become of the *great desideratum* machine, so strongly recommended by the American Institute some few years since, from St. Louis, we believe?

I have recently rotted hemp, and produced a superior and uniform quality, by a new process; that process I will proceed to explain, believing firmly that if it be applied to the sliver of hemp, designed for fine yarn, an equal thread can be uniformly and economically obtained.

It is known that the glutinous matter causes the adhesion of the fibres; to remove that glutinous matter, the hackle and milling machine have been resorted to with rather uncertain results, and great loss of material; that process I call the mechanical, and if I prove that the same results can be attained by a chemical process, then I shall think I have rendered some service to the manufacturer of hemp.

Hemp has been drawn and spun in a wet condition, and yet it has been so spun without an effort being made to decompose the incrusting matter. I propose to destroy the binding matter, by *heat and moisture*, which can be effected in about twenty-four hours. The rough hand of hemp is first lapped, and then passed through a drawing head and received into a can; the can filled with the rove of hemp is immersed in a vat of water, the water slightly impregnated with the sulphate of iron; so soon as a thorough saturation has taken place, the can is withdrawn from the vat of water—it is allowed to drain, retaining only so much of the water as the hemp will hold in solution; and in this way, by the action of still air, heat is quickly engendered, and in twenty-four hours a complete disintegration of the glutinous matter is effected. Should there be found too much moisture, when ready for the spindle, that could be removed by pressure on the hemp in the can, having openings in the bottom for the excess of water to pass out.

JAMES ANDERSON.

NOTICEABLE FACTS IN LATE ENGLISH AGRICULTURAL PAPERS.

Hops from a brewery make better hot-beds than horse-manure.

Potato Disease.—In the London Gardener's Chronicle of the 8th of July, the highest authority, it is stated that the evidences of disease among the potatoes have reached the editor in so many cases as to "make it evident that the danger to the general crop is serious."

Analysis of Plants.—At a special council of the Royal Agricultural Society, on motion of Mr. Pusey, M. P., seconded by Lord Portman, the council voted

"The grant of a sum not exceeding £300, to be placed at the disposal of the Analysis Committee, for the prosecution of Professor Way's analyses of the Ashes of Plants, in continuation of the results on that subject already published in the Journal of the Society. Mr. Pusey took that opportunity of remarking, that valuable as the researches published in the Journal had hitherto been, on inquiries connected with geology, entomology, chemistry, and other sciences connected with agricultural improvement, he was happy to say that a field of inquiry, no less interesting and important to the farmer, on the anatomy, physiology, functions, and diseases of live-stock, had been opened by the valuable lecture already delivered before the members in London by Professor Simonds, and which was then in the press, illustrated with numerous wood-cuts, for the new number of the Journal; and he had no doubt that Professor Simonds's lecture, about to be delivered at the York meeting, would be found no less important and interesting than its predecessor."

How much more profitably our American Institute and other societies might thus appropriate some of their surplus cash, now funded in "five-per cent. stocks!"

Draining.—The following item is very interesting, as going to show that, in our pine and cedar boughs, we have a valuable material for draining in many places where no other exists.

No drains answer their purpose better than some we have seen on the farm of Mr. Summers, a plain farmer near Nottingham, in Maryland, made with several pine poles laid side by side along the drain, and covered with pine or cedar boughs, and then covered over with earth, in such a manner as to present no obstacle to the passage of the water below, or of the plough above, nor any break in the surface of the land:

"Lord Portman favored the council with an interesting statement of the result of his draining forty acres of meadow-land, twenty-four years ago, with young Scotch fir boughs, obtained as the thinnings of his plantations. The boughs were cut in June and July, when the trees were full of their sap and turpentine; and, being laid longitudinally in the drains of the meadow, at a depth of three feet, to within eighteen inches of the surface, they were covered over with clay and turfed down. His lordship having recently had occasion to make a cut across the meadow in question, for hydraulic purposes, he had the satisfaction of finding that, after a period of twenty-four years, every drain was found to be doing its work admirably; and the boughs, instead of being decayed, were found in perfect preservation, and the wood had become firmer in the substance, and harder to the cut of the knife. Mr. Fisher Hobbs had the pleasure of fully corroborating Lord Portman's statement of the value of fir boughs for the purpose of draining in strong clay or marl, some of his own drains, formed of them, having stood from fifteen to twenty years. He had found, however, that, unless the boughs were cut while full of turpentine, the wood would soon decay."

Since writing the above, we have seen it stated in the American Farmer that Charles B. Calvert, Esq., an enterprising and, above all, an inquiring and investigating farmer, has thoroughly drained some of his most valuable land by a means, as to materials, at the command of many who have all their lives given up many acres of their richest land to mud and mire, for want of enterprise to begin, or thought upon the means of reclaiming it. We

are glad to preserve the following evidence of the energy and success of a different sort of man. These are the sort of men, as Doctor Thompson says, who ought to be in the management of our public affairs, so far as the landed interest is concerned; but such men generally stand no chance in competition with a young limb of the law. Is it not time, by-the-by—do not the times seem to invite the farmer and planter to lay aside and put their foot upon mere narrow, mercenary, calculating party spirit, and every other spirit, which blinds them to the paramount claims and importance of their own pursuit?—to elevate their views above the murky atmosphere in which the little designing demagogue would keep them always blinded, and endeavor to discern the true foundations of agricultural prosperity for every country? And who can doubt that that consists in the circumstances which most invite and make it easiest for men of all employments to come together—to concentrate and combine for maintaining mutual and friendly assistance and dependence among all the industrial pursuits that contribute to the sustenance and comfort of the community? But we are forgetting Mr. Calvert's simple mode and entire success in draining, thus described in that capital journal, the old American Farmer:

"On the southern front of the mansion, contiguous to the lawn, there is a field of between fifty and sixty acres now well set in clover and orchard grass, from which a luxuriant crop was mowed this season, and a second crop is now growing. This field, a few years since, was a deep and almost impenetrable swamp, in which, in the dryest seasons, the cattle were mired, and not unfrequently had to be prized out. This melioration was brought about by a series of open ditches and covered drains, which collects and vents the water at all times, and by which an unsightly and unwholesome quagmire has been converted into a fertile meadow, adapted alike to the growth of grass and to every other product of the farm.

"There is another field of about equal dimensions, which has been also drained, and about three-fourths eleared, which, when completed, will be among the most productive fields on the estate, as its soil has been enriched by the decomposition of vegetable matter for uncounted years. The mode of making covered drains as practised by Mr. Calvert, is eminently worthy of note, as it is both economical and simple, and, therefore, cannot fail to commend itself to all who, like him, may consider it a matter of moment to achieve great ends at the least possible cost. After digging and graduating the drains, so as to ensure himself of their capacity to pass off the water into the open ditches, he fills them up with pine-boughs to such a height as that they will not interfere with the operation of ploughing, and then covers up to the surface with the earth which had been excavated. From experience, these drains answer every purpose of more costly ones, and bid fair to endure for a quarter, if not the third, of a century. The facility with which Mr. C. has demonstrated, how easy a matter it is to make sound, dry, arable soils out of inaccessible marshes, is as notable as praiseworthy, and cannot fail, we should think, to stimulate hundreds of landed proprietors to reclaim lands of a similar character which they may have on their respective estates, and thereby enhance their value and secure their families against those autumnal diseases which make such inroads upon their constitutions and health."

Glass Milk-Pans, says Mr. Colman in his Report on European Agriculture and Rural Economy, made of bottle glass, are much approved, and with proper care are in no danger of being broken. They recommend themselves by their cleanliness and incapacity of rust, or corrosion, or decomposition. If our agricultural societies would offer a handsome premium for the first exhibited, or if the American Institute would engage one or two hundred of a manufacturer, we could have specimens exhibited, and the advantages are so obvious in the particulars recommended by Mr. Colman that they could not fail to come into general use.

It is surprising how long, under the force of habit and prejudice, the best things are kept out of use.

We can remember well when ochra was cultivated for the sake of the berry, to get in it the best substitute for coffee; but nobody then and there thought of making out of it the best and most wholesome of all soups and

most convenient, Gumbo soup; and so it may be said, as we find in an English paper, of

"*Steel Pens.*—Who does not remember the time when a steel pen cost as much as a dozen quills? Who is ignorant of the marvellous reduction that has taken place in the market-value of these tiny bits of steel? Sixpence a piece, sixpence a dozen, sixpence a gross—thus have they come down in value. All this could not have been done but for the application of machinery. Men's hands, employed in cutting and pressing and shaping the pens, would never have permitted this cheapening to have gone to such an extent. And yet there are actually more men employed in the manufacture than when machinery was less used. The machinery, in fact, *has created a demand*, which requires large numbers both of machines and of men to supply. Some of the steel-pen manufactories of Birmingham are very large establishments, containing ranges of highly finished machines, and giving employment to large numbers of workmen. One of these manufacturers (Gillot), in his advertisements, states his yearly produce at *millions of dozens:* and there is no reason to doubt that it does not reach that extraordinary pitch."

Let us have glass milk-pans, if only for greater cleanliness. If some glass-bottle manufacturer would only introduce them, we will guarantee him custom. To return to what is said above about steel pens and the tendency of machinery to create demand for labor, so it would be with a variety of other small manufactures that might be established in country villages and county towns in Maryland and Virginia, if the laws of the state and of the Union would give the encouragement and security they ought to the natural tendency of men to combine and come together for all the purposes to which individual strength and means are inadequate. These manufactories once in operation would create business for themselves, while they would thicken population and give support to all around. There is scarcely a village in Maryland or Virginia, or a good water-power, that ought not to have *small factories*, a number of which, scattered here and there, would be much better for the country than the *centralization* of vast masses in large cities. For example, take ANNAPOLIS, *the seat of government of Maryland—why not a manufacturing town?* Why should not Annapolis support various manufactories where steamboats and railroads run every day? where living and house-rent are so cheap, the means of education at hand, and the population as exemplary and virtuous as any in the world; so much so that, within our knowledge, the front doors of hotels were left unlocked all night? Were such advantages enjoyed at the *seat of government* of a New England city, such an estate as Strawberry Hill would be worth $100 an acre at least, and every man, woman, and child, would be well and prosperously employed. Into all these things we hold it to be our duty to look, for it is on *these* things that agriculture depends. Why should not all the works of the loom and the anvil, needed for that place and vicinity, be *made there*, and the farmer, and the weaver, and the smith exchange with each other? It could not succeed, say some, because it has *no water-power;* and that would be true if water had no power, except by its gravity in the act of falling over a wheel. But is it forgotten that steam has taken the place of water, and that by the application of heat, one inch of water may be so evaporated, and a mechanical force evolved equivalent to fourteen pounds and three quarters raised to the height of 1700 inches. If, as is known, the application of steam to machinery has drawn manufactories from the line of water-courses into large cities, what is to prevent the use of steam for manufactories of every sort at Annapolis? Would not the greater cheapness of living, and of land and houses, and sites for factories, more than counterbalance any additional cost of transportation? If cotton and coal can be sent to Harper's Ferry and to Laurel and the Savage factory, why not to Annapolis? *Our* business with such questions is, as they affect the interest of the farmer and planter. As such, we shall examine them again and again.

INSPECTION OF TOBACCO IN VIRGINIA.

We find the following in the "Southern Planter;"—judging by what we have seen we should doubt whether it has ever been signed and presented, however universal may be the impression that the legislation called for is needed. Neither do we suppose that if presented it would be heeded, so inert is the *agricultural* class, and those who represent it, in State Legislatures and in Congress.

In the Senate of the United States, that body so select and so double-refined in public spirit and patriotism, we have good authority for saying, that up to very nearly the last day of one of the longest sessions of Congress which has ever happened, the Committee on Agriculture had *never held a single meeting!* nor do we believe that for this gross and scandalous neglect of an appointed duty, they will ever hear one word of reproach from any agricultural society, or from any other paper or individual in the Union—except in the still small voice that here speaketh. How can it happen otherwise than that a class which is thus guilty of self-neglect and abasement, will be neglected and trodden upon by all other interests.

To the General Assembly of Virginia.

Your petitioners, a majority of whom are planters of tobacco and citizens of county, respectfully invite your attention to the Tobacco Law, and ask an amendment of the same. Many years ago, the legislature prohibited the exportation of inferior tobacco. When this law was passed, it became necessary that the inspectors or some other officers should have the power of pronouncing judgment upon tobacco when inspected, and of deciding what was fit for exportation, and what deserved the flames. In this way originated the power conferred upon the inspectors of passing and refusing tobacco. The exportation of refused tobacco is not now prohibited, but it is now exported to the different markets of the world as freely as passed tobacco. The reason, then, for allowing the inspectors the right of passing and refusing tobacco, has ceased. This power was given to the inspectors under circumstances no longer existing, and its continued exercise is at war with the liberality of the age. We also maintain, that it is injurious to the planters, who have the same right to ask that the proceeds of their labor shall be exempt from unnecessary condemnation as those who follow other pursuits. No one denies the expediency of having tobacco inspected. It is proper that the hogshead be taken off, the tobacco broke, and samples drawn out and exhibited. When this has been done, the buyers and planters are competent to make their own contracts, uninfluenced by the judgment of the inspectors. We think that the inspectors should be inspectors *only*, and not *judges* as well as inspectors. No tobacco can pass unless the inspectors deem it "sound, well conditioned, merchantable, and clear of trash." The refusal of tobacco by the inspectors (who are selected because of their integrity and knowledge of tobacco) is equivalent to a public declaration that such refused tobacco is not "sound, well conditioned, merchantable," &c. Refusal brands tobacco with discredit, and impairs its market value. To deny this, is as erroneous as to assert that the standing of a man in society is as good after trial and conviction as before. If all the horses brought in Virginia, for sale, were examined by legal inspectors, who were competent judges, and who were required to refuse all horses not deemed by said inspectors to be "sound, well conditioned," &c., can any one believe that horses known to have been inspected, and marked as refused, would sell as readily, and command as much, as they would if there were no inspection and no refusal? Again, the words "well conditioned and merchantable" are so vague and indefinite, that the inspectors cannot act upon any uniform rules in deciding what tobacco ought to pass, and hence tobacco is refused at one warehouse which would have passed at another. Why subject tobacco to refusal, when other products are exempt?

Wheat varies in quality and appearance, yet the miller and seller make their own contracts without the need of inspectors to enlighten their minds or bias their judgments. There are no inspectors whose duty it is to refuse any of the iron made in Virginia, or the cotton or woollen goods made here, nor are those who follow the various mechanical trades liable to have the proceeds of their labor disparaged by the refusal of competent judges, acting in obedience to law. Western hogs and horses brought annually into Virginia are liable to no legal condemnation. We see no reason why the planters should be regarded with distrust and suspicion. They ask no exclusive favors, but they desire to be relieved from injustice. Their tobacco needs no commendation from the inspectors, and should receive none of their censure. Let tobacco stand or fall upon its own merits. The reputation and character of Virginia tobacco should be confided, not to the inspectors, but to the planters themselves, who are the appropriate guardians of their staple. No refusal is necessary as a stimulus to improvement, or a penalty for neglect. Prompted by self-interest, the planters will always endeavor to make good tobacco, and prepare it properly for market. When they make indifferent tobacco, it is more their misfortune than their fault, and misfortune deserves no punishment. Other reasons might be argued in support of the proposed amendment, but we forbear, and content ourselves with expressing the hope that it will be the pleasure of the General Assembly to amend our tobacco law, as has been here indicated.

THE QUEEN-BEE AT HOME.

The community of bees is an example of a pure monarchy, unrestrained by any checks on power, yet never deviating into despotism on the one hand, or anarchy on the other. Some years ago, while our gracious queen was making a royal progress through her northern dominions, we witnessed a no less interesting sight of the progress of a queen-bee, in the glass-hive of an ingenious friend and lover of nature at his country retreat. The hive was of that construction which opened from behind, and showed the whole economy within. In a few minutes, the queen made her appearance from the lower part of the hive. Her elongated body and tapering abdomen at once distinguished her. She moved along slowly, now and then pausing to deposit an egg in one of the empty combs; and it was most interesting to perceive how she was constantly accompanied by nearly a dozen of bees that formed a circle around her, with their heads invariably turned towards her. This guard was relieved at frequent intervals, so that, as she walked forward, a new group immediately took the place of the old, and these, having returned again, resumed the labors in which they had been previously engaged. Her appearance always seemed to give pleasure, which was indicated by a quivering movement of the wings. The laborers, in whatever way occupied, immediately forsook their work and came to pay homage to their queen, by forming a guard around her person. Every other part of the hive, meanwhile, presented a busy scene. Many bees were seen moving their bodies with a tremulous motion, by which thin and minute films of wax were shaken from their scaly sides. Others were ready to take up this wax and knead it into matter proper for constructing cells. Frequent arrivals of bees from the field brought pollen on their thighs for the young grubs, and honey, which they deposited in the cells. All was activity, order, and peaceful industry. None were idle but the drones, who seemed to stroll about like gentlemen.—*British Quarterly Review.*

MEANING OF THE TERM "BLOOD."

A good deal of pains has been taken to define the meaning of the term "blood," as applied to the horse called thorough-bred. Osmer, an old but accredited writer on the Horse, pronounced it to be a certain elegance of parts, derived from air, climate, and food, which, being suitable to the true natural conformation of the animal, enables him to perform extraordinary feats of activity and motion, coupled with great endurance of the highest bodily exertion; and hence the expression, "he shows a vast deal of blood," means nothing more than that he is a truly formed race-horse. Where, he asks, is the blood of the Ostrich, whose speed is so great, that it can "laugh at the horse and his rider?" "If the good qualities of the race-horse," says he, "depend upon blood, we could not, as we often do, see one horse very good, and his own brother, with equal advantages of good keep and training, very bad." It was the opinion of this writer, that it has been to the folly of expecting, that what is termed high-blood, in the Eastern horses, unaccompanied with essential form, will produce a racer, so many failures in the attempt to breed race-horses have occurred; that the virtue of what racing men call "blood," has been too much insisted upon, not being sufficiently influenced by the fact, that it can never be considered as independent of form and matter. We conceive there is a great deal of truth in each of the foregoing observations. Blood cannot be considered independently of form and matter, inasmuch as the excellence of all horses must depend on the mechanism of their frames, which, if duly proportioned, and accompanied with superior internal, as well as external organization, gives them stride, pace, and endurance. The quickness of repeating this stride also, and the power of continuance, will depend upon vigor of muscle, capacity of chest, and strength of the constrained lungs. The result, then, of this argument is, that when we speak of some of the celebrated stallions of former days having transmitted the good properties of their blood, or high Eastern descent, to the race-horses of the present time, we can only imply, that they have imparted that true formation of parts, that firmness of bone and sinew, and that general superior organization, competent to give facility of action; together with great powers of respiration, which will enable horses to last under the severest trials of their powers. In fact, their excellence is in a great manner mechanical. Were it not so, indeed, did they not excel each other according to the degrees of difference in their form and shape, and all the constituent parts, full brothers and sisters would prove of equal goodness on the race-course, health and condition being on a par. But this is very far from being the case; and, again, if it depended on blood, the same horse would run alike on every description of ground, which we know rarely happens; but of this we may be assured, that it is a superiority of muscular substance, united with justly proportioned shape, and not innate blood, which enables a horse to bear to be pressed, on any description of ground, still more so upon such as is severe, as several of our race-courses are.

Yet, if there must be this elegance of form, these nice proportions in the limbs, or moving levers of the race-horse, how is it that so many of those called "cross-made," *i. e.* plain, and apparently disproportioned horses, possess the power or parts conducive to speed and action? If blood can be defined the peculiar elegance in the texture of the external parts, how happens it that several very ugly horses and mares have at all times distinguished themselves on the turf? Are there certain occult causes, not discoverable to the eye, that produce this excellence, to which the rules and laws of action appear to be opposed? On these points it may be observed, first, that the force and effect of muscular motion is nearly beyond our ken; and, secondly, such horses are really not misshapen, inasmuch as they are hidden virtues in the

mechanism of their internal frames, which the eye cannot detect; and where deficient in one point, they are recompensed by additional powers in others. They possess the essential points, although not so elegantly displayed; and this, we believe, is the case with other animals than the horse; although, generally speaking, true symmetry in all is attended with corresponding excellence in their useful properties, and adaptation to the purposes of man.

Those persons who insist upon an innate quality in what is termed "blood," are led to believe that there is something in the *nature* of a thorough-bred horse, which enables him to struggle in a race far beyond his natural capabilities, and which is distinguished by the term "game." We do not think there is. We learn from experience that horses often allow themselves to be *beaten* by others which are inferior to them, from sheer ill temper; but their efforts to *win* a race, we consider to be merely limited by their physical powers, the effect of a proper arrangement of their parts; and that the operation of the mind, or spirit, has nothing at all to do with it. The hero at the Olympic Games had, and the champion of the British boxing ring may have had, feelings which, from the superiority of their nature, and the fact of their character, interest, and future happiness, being all involved in the event, might have induced them to struggle even to the very verge of life; but the same sense of honor, and the same spirit of emulation, cannot be ascribed to the race-horse.* If his own acting powers be unequal to those of others opposed to him in the race, he yields to that superiority, although it must be admitted, that what are called sluggish horses will not try to exert themselves to the utmost, unless urged to it by the spur and whip; and others, when spurred and whipped, slacken, instead of increasing, their speed. The final result of this discussion then is, that when, as has been previously suggested, we speak of such horses as King Herod, Highflyer, or Eclipse, having transmitted their blood to the past and present generations of running horses, we can only admit that they have transmitted that true formation of parts necessary to enable them to run races at a prodigious rate of speed, and to endure the severity of training for them.

EASTERN HORSES.

Although we have spoken in disparagement of horses of the East as racers, upon the same terms with those of our own breeding, we are willing to allow them the merit of being the parent stock of all our racing blood; as it is quite evident the indigenæ of our own country, or of those European ones which approximate to it, would never have produced the sort of race-horse now seen on the British Turf. The nature and character, indeed, of the horse of the Desert are peculiarly adapted to an animal who, like the race-horse, is called upon to put its physical powers to the severest test to which nature, aided by art, can submit. In the first place, the Arabian horse possesses a firmness of leg and sinew unequalled by any other in the world. This excellence, which he owes to climate, arises from his having larger muscles and *smaller bone* than other horses have;—muscles and sinews being the sole powers of acting, and on them depend the lasting qualities of an animal going at the top of his speed. Bones being the weight to be lifted, serve only to extend the parts; and it is evident, that such as are small, but highly condensed, like those of the deer, and the horse of the

* The Race-Horse appears to be animated by an instinctive spirit of rivalry and ambition to excel. Hence cases have been known where they have seized the rider of their opponent when in the act of passing near the winning-post. On Potter's course near Baltimore, Bachelor and another race-horse, grazing in the field, were seen to walk deliberately to the starting-post, take a fair start, and each to do his best for a mile! There are many things in this world not dreamed of in our philosophy, and there are many birds and animals, from which man might take lessons, if he would, in manners and in morals.—*Eds. P. L. & A.*

Desert, are, by occupying less space, and containing less weight, more easily acted upon by muscular force, than such as are large and porous, and for a greater duration of time, without fatiguing the acting powers. But the excellence of the Arabian horse, or horse of the Desert, does not end with his highly condensed bone, and flat and wiry leg, so much esteemed by the sportsman. All the muscles and fibres of his frame are driven into closer contact than those of any other breed; and, by the membranes and ligaments being composed of a finer and thinner substance, he possesses the rare quality of union of strength with lightness, so essential to the endurance of fatigue in all quick motions. He thus moves quicker and with more force, by reason of the lightness and solidity of the materials of which his frame is composed; and when, to these qualifications, are added the peculiar and deer-like elegance of his form, and extraordinary share of muscular power for his inches, he appears to furnish all the requisites of the race-horse on a small scale.

We have already accounted for the present breed of English race-horses being no longer susceptible of improvement from any foreign blood. But it is worth inquiring into the reason of the improvement of the horse of the Desert, and indeed of all the countries of the East, not advancing towards perfection, as that of our own breed has done. No doubt, it was intended that we should improve upon animal nature, as we improve our own, and nowhere has the attempt been so successful as upon our varieties of domestic cattle; but the horse of the Desert now, if he have not retrograded in his good qualities, is the same animal that he was nearly two centuries back. With the exception of the Wellesley Arabian, said to have been bred in Persia, (but the assertion is unaccompanied by proof,) who measured fifteen hands two inches high, all the rest that have been imported have been little better than Galloways, which must be attributed to two causes; first, the want of being forced, as our own horses are, in their colthood, by high keep; and secondly, by adhering too closely to the indigenous breed, or that whose blood is unmixed, by which means it has dwindled. Accurate observers must have noticed, that the greater part of the horses brought to this country as Barbs and Arabians have exhibited a palpable deficiency in the points contributing to strength, and the want of general substance is apparent at first sight. It is true that, of late years, their estimation has so diminished in this country, that no great pains have been taken to procure stallions of the highest caste, and scarcely any mares have been imported, and several of those sent over have been accompanied by very unsatisfactory pedigrees. We are, however, inclined to think that, as the immediate descendants of such horses are found quite inefficient as race-horses, and but few of the second or third generation have turned up trumps, unless as a rational experiment, the breeding of *race-horses* from Arabians is at an end.

In corroboration, however, of the good qualities of form and texture of this comparatively Lilliputian breed, we give the following extract from a letter of the late Captain Gwatkin, head of one of the Honorable India Company's studs, on the subject of crossing the English thorough-bred horse with foreign blood, dated Hauper, Bengal, September, 1828, to show, by their rate of going, their great endurance under the combined pressure of weight and speed; for to have run these lengths in the time specified, their height only averaging fourteen hands one inch, and of course unfavorable to speed, in addition to the ground being sandy, and therefore void of elasticity, the pace must have been severe from end to end of the course. Unfortunately the ages are not given, or a still better judgment would be formed of the lasting powers of these little animals under more than average weight.*

* See *Old Sporting Magazine*, vol. xxiv. New Series, p. 12.

Run at Bengal.

	Name.	Weight. st.	lb.	Time. m.	s.	Distance.
	Patrician,	9	0	5	34	280 yards, less 3 miles.
1807.	Antelope,	9	0	6	4	2¾ miles.
1809.	Patriot,	9	6	6	46	3 miles and 325 yards.
	Sulky, (sent to England,)	9	0	6	25	3 miles and 325 yards.
	Oddsbobs,	9	0	ran second in the above race.		
1818.	Sir Lowry,	7	4	4	0	2 miles.
1820.	Nimrod,	8	10	4	6	2 miles.
	Sultan, (not 14 hands,)	8	12	6	16	3 miles.
1826.	Paragon, (sent to England,)	11	0	4	20	2 miles.
	Esterhazy,	11	7	3	42	1¾ miles.
	Cavalier, (not 14 hands,)	8	7	4	4	2 miles.
1827.	Champion,	11	7	3	44	1¾ miles.
1828.	Barefoot,	8	4	6	7	second heat of 3 miles.
	Cornet,	8	4	Ran second to Barefoot.		
	Chapeau de Paillie,	8	3	2	58	1½ miles.
	Redgauntlet,	9	0	5	6	2½ miles.
	Botherem,	9	3	2	58	1½ miles.

Run at Poonah.

1827.	Pyramus, (not 13 3,)	9	0	4	8	2 miles.
1828.	Dragon,	8	8	4	4	2 miles.

Run at Bombay.

1827.	Slyboots,	8	5	4	2	2 miles.
	Gaslight,	9	0	6	16	3 miles.
	Creeper,	8	6	4	2	2 miles.

Run at Baroda.

1827.	Harlequin,	8	4	6	9	3 miles.

Run at Madras.

1828.	Orelio,	9	0	4	0	2 miles.

We have reason to believe, that the best use to be made of Eastern horses would be for the production of the English hunter, by the best-shaped hunting mares, nearly thorough-bred. By the help of the dam, and our present improved system of keeping young horse-stock, there would be little fear of the produce not coming to a good size, even in the first generation, as it is, for the most part, the property of these horses to beget stock larger than themselves; but by crossing the female produce in the second with our large thorough-bred horses, hunters for heavy weights might be looked for, with every prospect of success. We know that the virtue of the blood, or constituent parts, of the horse that was no racer, (Marske, the sire of Eclipse, for example,) has produced a racing son, by acquiring proper formation of parts from the dam; and if to the fine form of the English hunter could be added the firmness of leg and sinew for which the Eastern horse is so conspicuous, but in which the English hunter is too often deficient, in conjunction with the larger muscles, more highly condensed bone, and well known powers of endurance of the Eastern horse, not omitting his action, which is generally first-rate, but of which a proper judgment could be formed previously to the choice of the stallion, a great improvement upon our present race of hunters would be effected; and all such as were known to be thus bred would meet a ready sale. It is a well-known fact, that some of the most brilliant hunters England ever produced, were got by Arabian stallions; and one, by Lord Clive's Arabian, was one of the best horses in Leicestershire, in Mr. Meynell's day, over every description of country. He was the property of the late Mr. Childe, of Kinlet Hall, Shropshire, who is said to have been the first to introduce the present very spirited style of riding after hounds. A powerful Toorkoman stallion would not, we think, fail in getting hunters out of good English mares. That breed is the largest of any of the Eastern horses, owing to being reared on better land.

One word more on the subject of the Eastern horse, as connected with the English Turf. Owing to the doubts and uncertainties that hang over the pedigrees and countries of the most celebrated stallions and mares which laid the foundation of our present breed of racers, it is impossible to determine to which individual breed, whether to the Turkish, the Barb, the Arabian, or the Persian, are the greater advantages derived from them to be attributed. They appear to us to be pretty equally divided. To the Byerly Turk we are indebted for the Herod blood, (sire of Highflyer;) to the Godolphin Arabian, said to be a Barb, for the Matchem blood, the stoutest of any; to the Darley Arabian, (the sire of flying Childers,) for the Eclipse blood; and to the Wellesley Arabian, believed to be a Persian horse, to the only real advantage gained to English race-horses, by a foreign cross, in later years. It must, however, be observed, that the most famous horses of the last century, such as Childers, Old Crab, Eclipse, and King Herod, did not appear on the Turf before they were five years old; which leads us to suppose, that the failure of horses subsequently bred, as they themselves were bred, from Oriental blood, and trained at an early age, may in great part be attributed to the fact, of the immediate produce of such horses requiring more time to come to maturity, or even to a certain degree of maturity, than those, like our present breed of race-horses, farther removed from such blood; and the cause may be attributed to climate. It is reasonable to suppose, that the produce of stallions and mares bred in the Torrid Zone, would come slower to perfection in a damper and colder country than it would have done in its own; and we may infer from this, that, in proportion as horses were brought earlier to the post, and races shortened in distance, Eastern blood got into disrepute.

As to the comparative speed of Arabian and English race-horses, England is not the arena on which it can be fairly decided, inasmuch as the total change of food, system, and climate must operate more powerfully on the Arab brought to England after a certain age, than on the English horse taken to India under similar circumstances, for reasons too obvious to require to be mentioned. It may, however, be stated, on the best Indian authorities on this subject, that the best Arab on his own ground has not a shadow of a chance against an imported English racer, in any thing like a good form. The celebrated race on the Calcutta course, between Pyramus and Recruit—the former the best Arab of his year, the latter a second-rate English race-horse by Whalebone, the property of the Marquis of Exeter—settled this point, inasmuch as allowance was made for the comparatively diminutive size of the Arab, it being what is termed a give-and-take match, or weight for inches, in which Recruit carried 10 stone 12 pounds, and Pyramus only 8 stone 3 pounds, an extra allowance of 7 pounds having been given to him as an Arab.

"Pyramus," says the reporter of this race, "is as good an Arab (he had previously beaten all the best Arabs in Calcutta for the gold cup) as has appeared for many years. His condition was undeniable; the distance was all in his favor; and he was ridden with superior judgment; so that the result of his match with Recruit may be considered to have established this as an axiom, that no allowance of weight within the bounds of moderation can bring the best Arab, even in the climate most congenial to him, upon a par with an English thorough-bred horse of moderate goodness. In addition to all these circumstances in favor of Pyramus, it must be remembered that Recruit only landed on the 28th of May, (the race was run in January,) after a voyage of five months." This statement is borne out by one of the articles of the Auckland Cup, the annual gift of the Governor of Bengal, in which,

for the year 1840, English horses were weighted at 2 stones 7 pounds beyond that carried by Arabs.

BREEDING THE RACE-HORSE.

Amongst the many things in the history of Ancient Greece that have called forth the admiration of mankind, the celebrated games of Olympia claim the foremost place. Independently of their religious association, and advancement of literary spirit, they were highly serviceable to the country; and none proved more so than those at which horse-racing was introduced, which appear to have been completely established in the 25th Olympiad. That the improvement of the native breed of horses was the chief object of the Government, is beyond all doubt, as it has been that of all others who have given encouragement to racing; and it is equally apparent, that the Thessalian courser, so highly extolled by Pindar, and likewise so terrible in war, was the result of a foreign cross. So essential, indeed, was this object considered in Greece, where horses were very scarce even after the time of Pindar, that it is stated, on the authority of Aretius, in a note on Pindar's second Isthmian Ode, that there was a general law in Greece, requiring all who were able to breed horses. The state of perfection their horses had approached at this early period is beyond the power of conjecture; but in Great Britain, from the highly cultivated knowledge of the mechanical structure of living bodies, with the junction of best shapes—although, but for the stimulus given by racing, this knowledge would have been comparatively in its infancy—the horse has arrived at the highest state of perfection of which his nature is capable; and in whatever country and in whatever climate his racing powers are put to the test, he has scarcely found a rival, excepting under very disadvantageous circumstances. It is true, his *lasting* qualities were doubted, and he was challenged to rebut the charge; and the following was the result. On the 4th of August, 1825, two second-rate English racers, Sharper and Mina, contended against the most celebrated Cossack horses from the Don, the Black Sea, and the Ural, in a race of the cruel length of forty-seven miles. At starting, Sharper and Mina ran away with their riders more than a mile, and up a steep hill, when the latter horse broke down, and pulled up. Half the distance was run in an hour and forty minutes. In the last half, only one of the Cossack horses was able to contend with Sharper, who, notwithstanding every foul advantage was taken by changing the weight, and dragging along his opponent by a rope, won his race in gallant style, performing the distance in two hours and forty-eight minutes. At starting, the English horses carried three stone more weight than the Cossacks; and during the latter half of the race, the one Cossack who remained in it was ridden by a mere child.

From the export trade to the Continent of English horses, and particularly those of full blood, joined to the low price of horse food during the last twenty years, and on which there is not much prospect of an advance, occupiers of land cannot turn their attention to a much surer source of profit than that of breeding horses, provided they go judiciously to work. But, unfortunately for the speculators in this branch of rural economics, too much is left to chance and experiment, and thus horse-breeding becomes absolutely a matter of speculation, instead of a matter of judgment. It is true, those noblemen and gentlemen whose studs have become eminent on the Turf, cannot be included in this charge; but, even with the benefit of great experience, and various other advantages, the utmost exercise of their judgment is required, to ensure even a prospect of success against such a field as they have to contend with. Having said this, we will lay down a few practical rules for the breeding and rearing the various kinds of horses now used in Great Britain, commencing, as before stated, with that of the Race-Horse.

HOW AGRICULTURE IS AFFECTED BY LOCAL PREJUDICES.

Doctor Lee, a New England man, as we believe, or at the least a New-Yorker, and formerly editor of the Genesee Farmer, is now a resident of Augusta, Georgia, as editor of the Southern Cultivator, which he conducts with his well-known ability.

Speaking, then, from personal observation, as to the comparative estimation of the laboring man in the North and the South, he remarks in the July number of the Cultivator:—

"So far as we have been able to discover, laboring white men are treated with equal, and in some instances *superior* consideration at the South, as compared with their treatment at the North. We dined not long since in company with the President of an agricultural society, wealthy merchants, members of the bar, and planters, at the table of a gentleman, who had at the time a couple of white laboring men employed in digging ditches. Under similar circumstances at the North, few gentlemen or their wives would have seated these *ditchers* at the dinner-table with their company; nor would the white laborers have expected it, or been offended to eat by themselves. On the occasion alluded to, these worthy men, albeit none the less worthy for having a little adhesive soil on their clothes, took their plates at the table in a way so perfectly easy to all the guests, as well as themselves, that we saw, to our surprise, no evidence of condescension on the one hand, nor of assumption on the other."

Now this, we must confess, Southern men as we are, seems to us to be going it, as the saying is, "with a rush!" It is one thing to entertain, as gentlemen do everywhere, kind and respectful and benevolent feelings for the honest laborer, whatever may be his trade or occupation; but it is quite another to bring in ditchers, with the "adhesive soil on their clothes," and place them among ladies and gentlemen at a dinner party, even, as we should think, for the convenience and comfort of the ditchers themselves. There is reason in all things, "even in roasting eggs!" but it shows conclusively, as the Doctor says, that "laboring white men *are* treated with equal, and in *some* instances superior, consideration at the South, as compared with their treatment at the North." How far such instances are common, is not stated; nor do we conceive them to be necessary to the establishment of the general fact that honest white labor is treated in the South with that respect which is everywhere due to it. To whatever influence it is to be ascribed, there is no part of the globe where more kindness of heart and of treatment is evinced towards inferiors in rank and fortune by their superiors in both, than in the Southern states.

Not many days since, we were agreeably surprised by a visit from a large planter of Louisiana, residing near St. Francisville; and a Northern gentleman being present, who justly appreciates the Southern character, though opposed on politico-economical grounds to their "peculiar institutions," we asked our Louisiana friend about the "allowance" to his slaves; not that we did not know, for we had learned it on his estate, but that the facts might be brought directly to the notice of our Northern friend. The answer was, that the regular allowance, besides milk and vegetables, was as much meal as they could eat, and *four pounds* of meat, of the best sort, per week; and if that were not enough, his orders were to give more—"to give enough, but to permit no waste"—*sugar and coffee every day.*

The gentleman's word was as conclusive to our mind, of the exact truth of the statement, as if it had been proved by a thousand of those carefully drawn up "affidavits" prescribed in some parts of the country, to guard against lying and fraud in all cases where premiums of a few dollars are in question for the best half acre of sugar-beets or carrots.

(From the London Gardeners' Chronicle, by Professor Lindley.)

ANALYSIS OF COTTON,

WITH REMARKS ON THE SOIL AND CLIMATE ADAPTED TO IT.

SINCE our paper on the chemical analysis of Cotton wool and of Cotton soils was written, we have received an ANALYSIS of NEW ORLEANS COTTON WOOL, and of the seed of the same kind of Cotton made by an American chemist, which, we believe, has not yet been published. This is interesting, not only on its own account, but as showing the great value of employing the seed as a manure for the Cotton plant.

One hundred parts of Cotton wool, on being heated in a platina crucible, lost 85·89 parts. The residuum, on being ignited under a muffle till the whole of the carbon was consumed, lost 12·735, and left a white ash which weighed nearly 1 per cent., or 0·9347. Of this ash nearly 44 per cent. was soluble in water. Its constituents were as follows:

Carbonate of potash (with a trace of soda)	44·29
Phosphate of lime (with a trace of magnesia)	25·34
Carbonate of lime	8·97
Carbonate of magnesia	6·75
Silica	4·12
Sulphate of potassa	2·90
Alumina	1·40
Chloride of potassium, Sulphate of lime, Phosphate of potassa, Oxide of iron (a trace), and loss	6·23
	100·00

Analysis of Cotton Seed.

One hundred parts, treated as before, lost 77·387, and the residuum, after being burned under a muffle, left 3·936 parts of a perfectly white ash, the composition of which was as follows:

Phosphate of lime (with traces of magnesia)	61·34
Phosphate of potassa (traces of soda)	31·73
Sulphate of potassa	2·65
Silica	1·68
Carbonate of lime	·47
Carbonate of magnesia	·27
Chloride of potassium	·25
Carbonate of potassa, Sulphate of lime, Sulphate of magnesia, Alumina and oxide of iron, and loss	1·63
	100·00

With respect to these analyses, we may for the present observe, that the seeds yielded nearly four times as much ash as the Cotton itself did, and at the same time contained a much larger proportion of phosphoric acid and of lime. In this respect the quantity of both these substances is greater, as shown by the American analysis, than in that of Dr. Ure. Whether this may be owing to different kinds of wool having been employed, or to differences in the modes of analysis, can only be known when the analyses have been repeated by chemists with different kinds of Cotton.

In resuming our observations on soils, it is first of all necessary to observe that, though no one will dispute the paramount importance of the chemical constituents of the soil, yet these may be considered in some respects to be only of comparative value, as it is equally necessary to attend to the physical state of the soil, and to both in connection with the climate of particular localities. The mechanical state of the soil, its greater or less degree of porosity or of tenacity, enabling the roots to spread with more or less facility, so as to fix the plant steadily in the earth, at the same time that they supply it with a large portion of its nutriment, is necessarily of great importance. But as a considerable portion of the food of plants is supplied by the air, its

different states and due supply require also to be attended to, in addition to climate; no chemical composition or mechanical state will compensate for unsuitableness of climate. We all know that our oaks are as little likely to flourish within the tropics, as South American palms in our meadows, and no one now expects that our rich variety of orchids would flourish, if, supplying them with every requisite of site, of soil, of culture, and even of temperature, we denied them a moist atmosphere. And yet a few years only have elapsed since it was considered a rarity to flower these *air-plants;* and also since mountain rice was attempted to be cultivated here in the open air, because it came from a cool climate, and was said to be cultivated without irrigation. But it was forgotten that, during the season of cultivation in its native mountains, rain falls almost every day, and the air is in a state of continual moisture. So, also, in the culture of cotton, a certain state of the soil, both with respect to its chemical composition and its mechanical state, may be well suited to one situation, and yet not be desirable in another, chiefly from a difference in the condition of the atmosphere. For instance, a certain degree of porosity of the soil may retain and bring just enough of water within reach of the roots, and yet if the atmosphere became more damp, the soil may require to be made drier by drainage. Again, if in another situation the air is more dry, and evaporation necessarily greater, both from the surface of the earth and from that of the leaves, a soil more retentive of moisture will be more suitable than one which is more open, and which thus allows moisture to escape, not only by evaporation but by drainage. These varieties may be observed not only in the soil and climate of different localities, but even in the same locality at different seasons of the year, especially in a country like India, which, in the language of meteorologists, is in many parts one of extremes. As plants obtain from the ground their water, holding in solution saline and earthly particles, and are dependent upon the air for the elements of organic matter, it is evidently essential to pay equal attention to both, for it is difficult, nay impossible in most cases to say whether the soil or the climate has the most influence upon successful cultivation, and it is nearly as useless, to use the words of Mr. Neill, as "attempting to decide which half of a pair of scissors has most to do in the act of cutting, or which of the factors 5 and 6 contribute most to the production of thirty."

With respect to the practical inferences deducible from the chemical analyses, we may first quote the opinion of Mr. Piddington, that carbonate of lime was essential to good cotton soil. Subsequently he observed that the American, the Mauritius, and the best Singapore soil contain a considerable per centage of vegetable matter, and some part of it easily soluble in cold water, while the Indian soils contain very little vegetable matter, and this wholly insoluble in water; but that the best contain a far larger proportion of carbonate of lime, and, some of them, their iron in a different state from the others. The lime, though not indispensable, he supposes, may be highly useful; but he ascribes greater value to the presence of vegetable matter. For a soil in Bengal, which contained but exceeding minute portions of lime and carbonaceous matter, and in which he cultivated cotton, worth from 9*d.* to 11*d.* per lb., as an experiment, for seven or eight years, during which he had always good and often abundant crops, he ascribes this effect to the plants having been constantly manured with the black, peaty earth, so abundant in the jheels (pieces of water) of India, and of which an average good specimen contains 26.00 per cent. of vegetable matter, and 15.00 per cent. of carbonate of lime, yielded chiefly by the small shells contained in the above deposits.

Mr. E. Solly, as the result of his analyses, remarks, "that the goodness

of the soils from Georgia depended, probably, far more on the mechanical structure than on the chemical composition, and that the presence of lime or any other substance would appear of far less importance than that the soil should be, not too rich, but of a light and porous character, so that the delicate fibres of the roots might penetrate easily in all directions." This opinion is probably not far from the truth wherever the climate is most suitable to the cultivation of cotton.

Dr. Wight, after practical experience of some years, states that where it is in his power to choose, he prefers "a deep dark colored, light, almost sandy loam, and if it has been long out of cultivation so much the better." The black cotton soil in which so much of the cotton of India is grown, and which is generally considered the best for the purpose, is remarkable for its power of retaining moisture; while of the red soil he says, "again I am informed that in some parts of the country, for example in the Vizagapatam district, the finest cotton crops, both as to quantity and quality, are raised on red soils, and the redder the better for the purpose." But the suitableness of these several soils we must consider in connection with climate.

COMING TO THE POINT IN AN INTELLIGIBLE, PRACTICAL WAY.

In the Kent County Maryland Farmer's Club, a discussion seems to have been entertained as to the proper time for sowing wheat. In a certain club ycleped a "*Farmer's Club!*" at which we erewhile attended, occasionally, for curiosity and amusement, and with certainty of information when such as Doctor U. and C. H. A., &c., happened to be there—otherwise, those in attendance were any thing but farmers—you might have attended to hear the question discussed, what is *the right time to sow wheat?* but in a few minutes, as soon as the everlasting talkers could get off on a tangent, you would in vain endeavor to guess *what* was the question at issue. Now we like a discussion that ends in something plain and practical like the following:

"At a meeting of the Agricultural Board of the Agricultural Society of Kent county, on the 8th inst., the opinion of members was asked in reference to the proper time of seeding wheat:

Mr. Ricaud thought all wheat should be seeded as early after the 15th August as practicable.

Mr. Smith agreed that Mediterranean wheat should be seeded so early, but other wheat may be advantageously seeded up to 10th October.

Dr. Kennard—The proper time for all wheat is from 20th August to 10th September.

Mr Wilkins concurred in opinion with Dr. Kennard.

Mr. Westcott—From 1st August to 20th September, season suiting and ground being in proper order, which are considerations of controlling influence.

Mr. Price—All wheat should be seeded from 20th August to 10th September.

Mr. Spencer thought nothing was to be gained by seeding before the 1st September.

Mr. Constable—Decidedly in favor of early seeding, from 20th August to 20th September.

Mr. Ringgold—Has seeded early for two years past, thinks his wheat seeded from 1st to 15th September best; seeded a portion of his crop last year as early as middle of August.

Judge Chambers—Seeded on the 16th August as long since as 1837 with singular success. The best wheat he had this season was seeded in the middle of August, which is the favorite period with him."

But against the unanimous opinion of these nine practical farmers, in favor of early seeding, what is to be said of the opinion and practice of Judge Carmichael, also a closely observing farmer, who sows late to avoid, and seldom suffers by, the ravages of the Hessian fly? He says—

"I never sow wheat till the cool weather in October disarms the Hessian fly, by which I seldom suffer."

The witnesses live in neighboring counties.

THE TRUE SOURCE OF THE FERTILIZING POWER OF MANURES, OR, THE EFFECT OF SHADE.

THE following is that sort of communication which we take pleasure in spreading before inquiring readers, who pay to the journals they patronise, not the poor compliment of merely subscribing their names and paying, (*which some forget to do!*) but that which is to every editor of true ambition much more gratifying, that of *reading and studying what he takes the trouble to furnish.* For ourselves, our humble aspiration has ever been, not so much to count the number of subscribers as to give in new ideas *subjects for thought* to those we have; for however slow we might be to imitate, who may not admire the pride of the French cook, who threw himself upon his sword because the fish for his royal master's dinner had been spoiled in the cooking?

We regard the following as, to a certain extent, original; and highly important in the practical uses that may be made of it. There is not an observant farmer, in the habit of noticing all he sees connected with his profession, but may remember some facts corroborative of Doctor Baldwin's theory. We remember, when a boy ourselves, delighting in assisting "the people" on Saturdays in the light work of hay-making, that the noble-minded and noble-hearted proprietor, who was truly a *father over all*, black and white, always made them select *poor* spots in a neighboring field on which to *cure and stack the hay*, and these spots, merely from the effect of the stacks having stood upon them, were sufficiently fertilized to bring heavy crops of corn and tobacco. Yes, *these are* the sort of communications that impart ideas that excite thinking, and that are well worth to the reader the annual price of the journals in which they are kindly permitted to appear:

Winchester, Virginia, August 25, 1848.

DEAR SIR,—I submit for your consideration a few practical observations upon the subject of manures, or the aliment of plants, made during an attempt to renovate a large tract of impoverished land in this county. I consider the residue of putrefaction the only manure. All substances, animal, vegetable, and mineral, either liquid or solid, which are capable of undergoing the putrefactive fermentation, form, by the chemical changes peculiar to that process, a fertilizing residue. This residue is the *only* pabulum of plants. No substance whatsoever, not excepting animal excretions, can be properly considered a manure until it has been subjected to putrefaction. To perfect this, it is indispensable that most substances should be favorably located. Close, dark, cool, damp locations, with a slight contact of air, most favor it. Light, heat, much moisture, and a free circulation of air, retard, and in many cases entirely prevent, the putrefactive process. I believe that the quality of the manure does not depend so much upon the chemical composition of the substances subjected to putrefaction, as it does upon the manner of perfecting that process. Manure made in vaults is admitted to be the best, and manure in stables better than that of barn-yards. Straw, which has remained in vaults or ice-houses one winter, when ploughed under in the spring, proves to be a very valuable manure; taken from the rick it is no manure. The earth itself is capable of being converted into the best manure. If densely shaded, it will undergo chemical changes, apparently similar to those which vegetable and animal matters do when they are converted into manure; namely, it is changed in color, consistence, and fertilizing qualities. This fertilized earth is known as vegetable mould, or virgin earth, to be the best of all manures. It has hitherto been considered the residue of vegetable decomposition. I furnished you with the facts in June last, which convinced me that this definition was erroneous. I now wish to direct your attention to a few additional facts. Vegetable matters upon the earth's surface exposed to a free circulation of air, appear to be decomposed by a different chemical process, termed mouldering, which forms a trifling carbonized residue *destitute* of fertilizing qualities. And this is the case, also, when ploughed under and deprived of contact with the atmosphere. Unless they be previously saturated with water, or lime be added, they do not undergo the putrefactive fermentation; but by

mouldering become useless, if not pernicious, to after vegetation. The astonishing fertilizing effect of vegetable matters, when thickly covering the surface of the earth for a length of time, cannot be accounted for by their decomposition, for the quantity of the residue of clover, leaves, or straw, would not be sufficient, even if it were always equal in virtue to the best Peruvian guano. Straw spread thickly upon the poorest land—"land completely exhausted of alkalies"—will enrich it by the time it becomes decomposed; ten times the quantity ploughed under will produce no perceptible benefit. If the manure of straw be owing to the six per cent. of phosphate of lime which it contains, why is it that sixty per cent. placed in the earth imparts no fertility to it? But that the fertility of the earth is not attributable to the decomposition of the straw, is proved by the fact, that any substance incapable of decomposition will produce precisely the same effect. I do not entertain a doubt that the wonderful fertilizing effect of all substances covering the surface of the earth for some time, is to be attributed to shade and shade *only*, and that the degree of fertility imparted to the soil may always be estimated by the density and duration of the shade. That shade is a most powerful and efficient agent, is exemplified by the rapid destruction of the timbers and floors of buildings without cellars, when the precaution of preserving ventilation beneath has been neglected. That it can be most profitably employed by the farmer in fertilizing the surface of the earth, I know from experience; for lands densely shaded one year, *with any substance whatever*, will always prove to be more durably enriched than lands well manured. Any number of acres may be rendered productive by it (without labor or expense) in as short a time as it usually takes to prepare manure and apply it to a few acres. No method which has been hitherto suggested for the renovation of large tracts of worn-out land is so practicable, cheap, and effective.

Yours, with great respect, ROBERT T. BALDWIN.

THE AGRICULTURAL CONVENTION AT BALTIMORE, IN MARYLAND.

THE last few months have been remarkably fruitful of *conventions*. If their dignity and worthiness were measured by the scale of real usefulness, in reference to the objects for which they were called, among the most honorable would be esteemed the *convention of agriculturists assembled at Baltimore on the 5th of last month*. Yet of all that have occurred, it was probably the smallest in point of *numbers*. But, if to be measured by the spirit, intelligence, character, and patriotic designs of those in attendance, then was it worthy of the noble occasion for which it met. Where the yeast is so good, a small quantity will leaven a large mass; and thus may it be hoped the proceedings of this meeting will prove to have been one of those small, but lively sparks, which, falling on combustible matter, spreads rapidly and wide its renovating influence—not one of those devastating conflagrations that sweep as with the besom of destruction the accumulations of honest industry, but one of those to which the farmer on the river-shore has sometimes recourse in spring-time to destroy the poisonous growth and rubbish of the marsh, to be succeeded by sweet and nutritious herbage. May we not hope that this *farmers' convention* will be the harbinger of reform in particulars that affect not merely the profits, but the character and standing of the profession, insuring for it among themselves (where reform must always commence) a higher sense of self-respect, and a more *perfect combination* to command consideration from others, and especially from men in public life, who much need to be reminded that the *interest of*

the plough is that which, of all others, has the first claim on their attention? Surely, as is well said in the American Farmer,

"It is time that the agricultural community should take measures to protect their interests, as from long neglect, though numbering three-fourths of the entire population of the country, they have less weight in state and national councils than almost any other class. We say to them—*the time for action has arrived.* Whilst millions are expended yearly for the promotion of other interests, nothing has been done to improve the condition of those engaged in agriculture."

For our humble selves, we are free to confess, that, highly and unaffectedly as we profess to respect the intelligence, character, and designs of every member in attendance on this occasion, we should have little hope of any permanently profitable results, were it not that we anticipate, as the consequences of the wholesome excitement to which such conventions should lead, a higher appreciation and more determined enforcement of the claims of agriculture to take precedence over all other pursuits, when provision is to be made for instruction or encouragement by public authority and public means. More we have not room to say at present, except very briefly to add that the convention proved to be here what its members are known to be at home—one of *working men;* and that, during the *short time they could be kept together*, (too short, as usual,) much important matter was cut out for future consideration and action, besides the formation of a *State Agricultural Society* at the suggestion of Mr. DOBBIN.

On the meeting of the convention, JOHN GLENN, Esq., on the nomination of Mr. CALVERT, and by the unanimous acquiescence and wish of the body, was called to the chair. Mr. Glen is president of the Farmers' Club of Baltimore County, under whose auspices the convention met, and, though a professional man, whom all sides are eager to retain in all important cases of doubtful issue, he yet finds time to give his countenance to all undertakings to meliorate and improve the condition and prospects of agriculture; but he belongs (we say it not without deliberation) to the *most liberal* of all callings and professions, in our humble judgment.

As "The Plough, the Loom, and the Anvil" is *stereotyped*, to enable us to meet the demand for the thousands of copies which, it seems likely, will yet be wanting, it has to go early into the hands of the stereotyper, and thus this is the last moment to send forward any thing for the October number. We can only give, therefore, what follows from the Baltimore American, the morning after the adjournment of the convention; but we must take room to add, that, while so many drones remained sleeping at home, that active working bee, in the hive of agricultural industry, MAJOR JONES of Delaware, favored the convention with his presence and good counsels. Nor can we suppress the thought, as it arises at the moment, that, while so much solicitude was evinced for the procurement, on the best terms, of a supply of guano, it would not have been *mal apropos* to have passed a vote of thanks to GEORGE LAW, Esq., of Baltimore, for his active, persevering, and most disinterested, and even generous agency, in diffusing the substance over the country, and with it a knowledge of its properties. But the process may be said to have resembled that of boring and splitting granite rocks with gun-powder, so unbelieving are farmers; yet all mysteries become plain enough when *well explained*, and thus all *now* understand the value of guano, and the cry is how shall we get it on fair terms? For this let us wait the report of the committee appointed at the judicious and well-timed suggestion of Mr. Farquhar, of Montgomery county.

"The committee appointed to nominate officers for the State Agricultural Society, submitted the following report, which was adopted, and the gentlemen named declared to be elected officers of the State Agricultural Society:

President—Chas. B. Calvert, of Prince George's county.

Vice-Presidents—John Glenn, Baltimore city; H. S. Key, St. Mary's county; Gen. J. J. Chapman, of Charles county; Col. H. Capron, of Prince George's county; George Weems, of Calvert county; Wm. C. Syles, of Ann Arundel county; Dr. A. Thomas, Howard district; A. Bowie Davis, Montgomery county; David W. Naill, Frederick county; William A. Dodge, Washington county; Dr. Samuel Smith, Alleghany county; Geo. Patterson, Caroline county; Wilson Carey, Baltimore county; R. McHenry, Harford county; Rev. Mr. McIntyre, Cecil county; Wm. S. Constable, Kent county; Jas. T. Earle, Queen Ann's county; Samuel Hambleton, Talbot county; Jos. Pearson, Caroline county: Dr. J. E. Muse, Dorchester county; Dr. William Williams, Somerset county; John U. Dennis, Worcester county.

Corresponding Secretary—Geo. W. Dobbin.

Recording Secretary—Samuel Sands.

Treasurer—Geo. M. Gill.

Curators—Wm. W. W. Bowie, N. B. Worthington, J. C. Welsh, Z. Barnum, and Chas. R. Howard.

"On motion of Mr. Davis, the convention then adjourned *sine die*, and the State Agricultural Society immediately thereafter organized, the President, Mr. C. B. Calvert, taking the chair, and returning his thanks for the honor conferred on him.

"On motion of Mr. Crane, the papers throughout the state were requested to publish the proceedings of this body.

"The chair then proceeded to appoint the several standing committees called for by the laws of the Society.

"Mr. Dobbin submitted a resolution calling for the appointment of a committe to report on insects injurious to husbandry common in Maryland. The resolution was adopted, and the committee appointed.

"The Society then adjourned to meet on the evening of the 8th of November next."

We shall doubtless have the official report in the American Farmer.

THE IRON TRADE.

In our last, we stated our belief that if all the furnaces and rolling-mills of the Union, created since 1843, were closed, and the product of iron thus reduced from 700,000 to 350,000 tons, we should not import above 80,000 tons to take the place of the other 350,000, and for the reason that the payment of 80,000 tons produced abroad would be more onerous than that for the 350,000 produced at home, and we have just met with a statement that tends strongly to confirm this idea.

The import of iron into New York in the first half of the following years has been as follows:

	1846.	1847.	1848.
Bar Iron, tons, - - - - - - -	6690	14,259	13,600
Pig do. - - - - - - - -	7700	19,500	23,960

Here we see that the whole increase is but 23,000 tons, and that would perhaps give from thirty-six to forty thousand tons for the Union. We have thus gained by the tariff of 1846 the use of that quantity, but we have closed rolling-mills that would have produced a far greater one, and we have prevented the building of furnaces that would be now making 200,000 tons per annum, and of rolling-mills that would be yielding 100,000 tons of rails to be used for enabling the farmer and planter to get his products cheaply to market.

The price of iron has diminished, but the power to purchase it has diminished far more, because *the farmer is the man who pays the freight*, and every increase of the distance between him and his customers diminishes his power of consumption. He it is that should labor to bring the loom and the anvil to take their place by the side of his plough, and he it is that will do so, when he can learn to appreciate the fact that he must pay all the freight, and all the commissions, and all the insurance, and all the waste, that takes place in the passage of his food and his wool, or his cotton, on their passage to and from the place where his wool and his cotton are converted into cloth, and his food converted into iron.

STEAM POWER.

WHY NOT EMPLOYED MORE EXTENSIVELY FOR AGRICULTURAL PURPOSES IN THE UNITED STATES?

Written for the Model American Courier, by the Editor of the Plough, Loom, and the Anvil.

If the many thousand dollars which Congress begins to expend, under retence of satisfying the just demands of Agriculture, for its annual compilations of facts, and statistics, sliced with long sharp scissors from the journals of the day, and commonplace letters about feeding hogs on corn, cooked and uncooked, were appropriated in premiums for scientific discoveries in the principles, processes and implements of agriculture, and for *new* applications of steam and other powers to the cultivation of the soil, we should accelerate and illustrate the progress of American Husbandry, and the genius and talents of our countrymen would be put in a way to acquire enviable renown and profitable results in field practice. One has only to step into any one of the various manufacturing and mechanical establishments in our large cities, and there see the great variety of purposes to which steam is applied, from the boring of a 32-pound cannon, down to the smallest and most minute operation; and he cannot fail to be struck with the advantages which result to all trades and professions, from *concentration* of population and mind.

One of the sources of greatest loss to the farmers of the United States, is the want of some cheaper means of *draining land.* Ride where you will, through the old States, and you will see thousands of acres of the best land waste for want of thorough ditching and draining. The absence of population, occasioned by our encouragement of foreign labor, and consequent want of consumers near the plough, is generally enough to account for this waste of the richest lands. Still, it would not exist to the extent that it does, if the operation could be accomplished, as we are persuaded it might, if Yankee ingenuity could be stimulated by the certainty of adequate reward, for the invention of some mode of applying steam, or even horse power, economically and skilfully, to the purposes of ditching and draining.

In the account of the great Fair lately held in England, where the mere catalogue of implements exhibited made more than 200 pages of letter-press, we find the following account of *draining implements, and harrows.*

We are quite aware that, generally, for the uses and circumstances of American farmers, we are ahead of the old country in the way of implements, and that those which have been invented there, when imported, have, in many cases, been reformed and modified, to make them better suited to our purposes; but this is no reason why, when new ones are invented, our Agricultural Societies and implement makers should not import them, if only to be thus modified and improved.

"Draining Implements.—Of these, Messrs. Mapplebeck and Lowe, of Birmingham, contributed several; as did also Mr. H. Clayton, of 21 Upper Park-place, Dorset Square, London. Under this head we must not omit to mention a model of a very powerful machine invented and manufactured by Mr. Joseph Paul, of Thorpe Abbot's-hall, Norfolk, which is thus described by the inventor. This machine may be worked with three or more horses, and by a *single operation will cut a drain from three to five feet in depth at the rate of four feet per minute, leaving it in a finished state, with a perfectly level bottom for the tiles to rest upon.* It is also calculated for raising subsoil to the surface for the purpose of claying lands, [why not then in our marl pits?] and when used with four horses, will raise from 4 to 5 cwt. of clay per minute; and on stony soils it may be made equally efficacious, although the operation would be somewhat slower. It may be used to the greatest advantage when the surface of the soil may have become so hard, either by frost or dry weather, as to render it impracticable to accomplish the cutting of drains by manual labor. The utility of this implement, when it is required to cut drains on clover lands in course for wheat crops, and from which the first crop has been taken, is clearly seen; as the clay, from being immediately spread over the surface, becomes thoroughly pulverized, and

comes into immediate operation for the succeeding crop, while, from the rapidity with which the work is accomplished, the second crop of clover is not retarded in its growth. Price £50, exclusive of royalty, [or copyright,] which must vary under the circumstances in which it may have to be used. We had previously heard something of the working of this machine; and have no doubt, from the ingenuity and respectability of Mr. Paul, as a large, practical farmer, that his description of its capabilities and powers are fully borne out by facts. Mr. Paul has applied the same principle to a separate machine for deep subsoiling and pulverizing the land to the depth of 20 or 30 inches, and at the same time bringing up such portion of the subsoil, to be distributed on the surface, as may be deemed expedient. Price 30 guineas.

Although the above machine, at 50 guineas, would be too costly for our farmers generally, yet if a single machine were had, or a good drawing, it would soon be improved, probably as the English drill machine was improved by Mr. Pennock, and others have been by the unfettered and active ingenuity of American mechanics. And besides, if it will cut a ditch at the rate of from 3 to 5 feet deep and 4 feet long in a minute, or 240 feet in an hour, or 2400 feet in ten hours, a man might make a good business in taking it from farm to farm, and working by the perch. What we insist on is, that such things should be systematically watched for and imported. In England great improvements are stimulated by the certainty of great rewards in the price of meat and grain; let us then, if we cannot offer the same inducements, because we do not force those employed in manufacturing for us to come here with their looms alongside of our ploughs, let us, we say, at least keep a sharp look-out to take advantage of the fruits of this more universal and powerful stimulus to agricultural improvement and agricultural machines in the mother country. Such, for another example, as is noticed in the same account of the recent agricultural exhibition in England. The reference is to

THE NORWEGIAN HARROW.

Of these we noticed perhaps 100 varieties, from the powerful drag to the light seed harrow, and from the common oblong to the diamond, zig-zag, circular and serpentine form. The Norwegian, or revolving spike harrow, seems to have lost none of its former value, if we may judge from the increase in the number and quality of those exhibited on this occasion. Mr. Richard Stratton, of Bristol, alone, had five of different dimensions, chiefly invented by G. E. Frere, Esq., of Roydon, in Norfolk, but improved by himself. The chief improvement in their construction (speaking of the machine generally) consists in the facility with which they may be raised and lowered at the land's end; and on this point none pleased more than that of Mr. Samuel Smith, of Northampton, thus described by himself as the inventor, improver, and manufacturer:—"This implement is made principally of wrought-iron; it has four wheels—two cast-iron and two wrought-iron; it has likewise a strong wrought-frame, and four rollers full of spikes, the spikes on the front roller being two inches longer than those on the other three, so that it may mount the large clods more easily. The front axle-tree is made to oscillate, so that the wheels always take a level boring; it is also provided with a very powerful lever, by which it can be raised or lowered at pleasure. Price, at Northampton, £20." The following letter to Mr. Stratton so satisfactorily explains the nature and operation of one of these machines, that we do not hesitate to give it a place in our report.

"To Mr. Richard Stratton, Bristol.—*Sir:* When I received the Norwegian harrow, last winter, I was disappointed with it, believing it to be too heavy, and finding my workmen unwilling to use it. This opinion I shortly expressed to you at the time. I have now, however, a very different story to tell. It is not too heavy; and it is as absolutely requisite for the efficient cultivation of my land as a plough and the common harrow. Without it,

I could not have sown my oats, barley, or *mangold wurzel,* nor have brought my ground into proper order for potatoes and turnips. This *is no exaggeration, whatever.* During the late dry weather, as soon as I had ploughed the land, I ran the Norwegian harrow over it once. It broke the clods to pieces, and left *a fine light bed beneath. No drags or harrows would have accomplished anything to be compared to it, and most certainly not without ten times the work:* though I do not believe it could have been done *at all* without it. The men who used it were astonished at the work, and praise the machine in *unbounded terms.* I lent it to many of my neighbors, and their opinion of it does not differ from mine. One says he could not have got his land fit for potatoes, nor have sown his barley in a satisfactory manner without it; another says it is worth £50; and others, that it was worth to them at least a guinea a day. All their workmen concur with them in their praise of it. I could relate many instances of entire failure to bring land, not differing in its quality from mine, into cultivation during this season; and of instances of *days* being occupied to do work which the Norwegian harrow accomplished in a *few hours.* It is the only occasion I am acquainted with, when a general concurrence in the value and importance of a *new instrument was universal,* without qualification or exception; and when the workmen were actually delighted to use it. There is always a prejudice among ploughmen against a new implement; and that any such feeling should have been silenced by the most obvious and manifest efficiency of the Norwegian harrow, is the strongest testimony that could be given of its great value.

"Your very obedient servant, "THOMAS FALCONER.

"Wootton, Christ Church, Hants, May 23."—Price 15*l.* 10*s.*

A CHIP OF THE OLD BLOCK, AND A GOOD ONE,

Is this LIEUT. W. D. PORTER, son of Commodore David Porter! An article in the Washington Union says:

"During his residence at Tuspan, Mexico, as governor of the province, Lieut. WILLIAM D. PORTER made a coast survey of sixty miles, and a topographical survey of the same distance inland, the results of which he promptly furnished to the commander of the squadron in the Gulf. On his return to the United States, in command of the schooner Mahonese, he brought with him some thirty or forty of the native plants of the provinces of Tuspan and Chicintepex, among which are several valuable fruits and vegetables; also a variety of birds, some of which are known in natural history as 'the Curacoa;' these are about the size of a full-grown turkey, and are easily domesticated.

"The plants, &c. have been deposited by Lieut. Porter, with the National Institute, and will prove a valuable addition to its already very extensive collection."

One of the most expressive and beautiful compliments that was ever penned by a great statesman to a brave warrior, was that paid by Mr. MADISON, in his annual message, to COMMODORE DAVID PORTER for his valiant defence of the Essex frigate, where he fought to the last under disadvantages, such as attend a man who combats against two, with one hand tied behind him. We remember to have heard the noble hero say, that, during the engagement, in which a ball passed through his old black straw hat, three officers and men were shot dead at his feet while he was in the very act of conversing with them. It was a contest as unequal as that at *Buena Vista;* but one in which the superior could hold his inferior at his own distance. Porter had no chance to grapple his enemy, as the gallant Taylor had, else the result might have been equally fortunate, as it was an equally glorious display of patriotic and invincible courage, and the annals of war can supply nothing more so.

We cannot risk marring, by attempting to quote from memory, the compliment so sententious and beautiful, from the polished pen of the illustrious Madison; but, in proof of the value which brave men may well attach to *such praise* from *such men* in *such places*, we may add the remembrance of hearing Porter say, that it well repaid him for the mortification of not being able to come to close quarters with his wary enemy.

Porter was among the most constant and eager readers of, and a frequent and highly interesting contributor to the old American Farmer. His correspondence was highly valued by the editor for its versatility and humor and intelligence. Among other direct contributions to the stock of agricultural and horticultural materials, we are reminded by the above extract that *he too* sent to Mr. Skinner, then editor of the old American Farmer, some large fowls, in size between the barn-door fowl and turkey, called in South America *Powees*, if we remember rightly.

They were sent out to Mr. Oliver's country seat, Harewood, and were seen there for some years after, but we believe never increased their family, and got badly frosted in the feet.

We have often adverted to, but never dwelt, as our knowledge of their services and our feelings would prompt us to do, on the very many good offices rendered to *American agriculture* by American *officers of the navy.* It would be impossible to display a higher or more enlightened spirit than many of them have done from that bright era in our naval history, illustrated by such men as Decatur, Rogers, and Porter, and Hull, and Bainbridge, and Jones, and down to the last point of that time when most agreeable, social, official,* and editorial relations, made us familiar with their doings for the good of the plough. We need hardly add that we shall always be prompt to brighten the old chain, individually, and as editor now of "THE PLOUGH, THE LOOM, AND THE ANVIL."

A VISIT TO MR. VAIL'S SHORT-HORNS.

WE embraced lately, with much pleasure, an opportunity to visit, under the kind attentions of their spirited owner, Mr. Vail's large and superior herd of *short-horns*, near Troy, in New York. Professing to be something of judges, we venture to say that a large portion of the herd would pass muster at the best exhibitions in England—as why indeed should they not, since many of them are individuals imported with great care as to family and quality, and at very heavy expense? Infusing the blood of the Whitaker stock with that of the celebrated Bates stock, whose excellence has been repeatedly proclaimed in English agricultural annals, Mr. Vail has manifested a laudable solicitude to maintain the excellence of his herd, and will have at his command choice materials to meet the wants of those who may desire to convert their surplus corn and grass into the greatest quantity of beef in the shortest time. Still we should doubt whether his stock may not be increasing beyond a remunerating demand for good things in *this country*, and, were we not afraid of intruding, would recommend that he keep a look-out to maintain a commanding position, so to regulate matters that the means of supply should *follow*, not *precede* demand.

* The senior editor of the Plough, Loom, and Anvil would now have been the oldest purser in the navy, except S. Hambleton, Esq., (one of the best practical farmers in Maryland,) if he had not left the service after the war, and after having been appointed postmaster of Baltimore, also by Mr. Madison, he may be proud to add, on the ground of personal acquaintance, confidence, and friendship. One of the best essays that has ever appeared in the annals of American agriculture was Mr. Madison's address to the Agricultural Society of Albemarle, especially in *vindication of the use of oxen.* Ah! those were times to be remembered!

AGRICULTURE AND MANUFACTURES.

"We are glad to learn that the dispute between the lessees of the Dowlais Iron Works and the Marquis of Bute, as to the renewal of the lease, has been adjusted, and that the works on which thirty thousand persons are dependent, will be continued."

"We must now place the manufacturer by the side of the agriculturist," said Mr. Jefferson, in his letter to Mr. Austin, of Boston, in 1816. We were reminded of it on reading in a late English paper the above extract, placed at the head of this, for the sake of hanging on it, as on a peg, a few reflections.

Thirty thousand persons dependent, in England, on one *iron work!*—as many persons as there are men, women, and children, living in all Cumberland, or Dauphin, or Armstrong, or Schuylkill county, Pennsylvania! and yet we have lately seen that a large quantity of *English* railroad iron, perhaps from these very English works, has been landed at *Jersey city* for the use of a railroad to be laid down in Jersey state! Now, can any farmer of Pennsylvania or New Jersey fail to see that it would be better in this case to have the manufacturer placed alongside of the agriculturist, even though for a time, until that industry should get a fair foot-hold, he should be obliged to pay a little more for his hand-hammer and his nails?

Suppose the whole country were to demand a tariff that would insure the production, in our own country, of all the iron we need, must not the farmer benefit by the diversion of so much labor from his own pursuit, and by the presence and close proximity of so many consumers as must now be employed in producing it abroad?

Let us contrast for a moment the number here said to be *dependent on* a single iron works in England with the number *employed* in some of the important manufactures of Pennsylvania, as, for instance:

In woollen manufactures - - - - - - - - -	2,909
In cotton manufactures - - - - - - - - -	5,522
Two hundred and thirteen furnaces and one hundred and sixty-nine forges - - - - - - - - - - -	11,552
In these great branches, total - - - - - -	27,983

Well, suppose these thirty thousand persons dependent on one English iron work were to get their provisions from America, would it not be still better, both for the American farmer and the English manufacturer that they should be brought here as nearly as possible to his plough, that so the expense attendant on the sale and purchase should be as much as possible saved to both? and thus the farmer would save both money and time for the improvement of his great machine of production, and the operative would be able to get more for his labor.

Here we may appropriately invoke the attention of the reader to a few pages of a work that has lately appeared under the title of "THE PAST, THE PRESENT, AND THE FUTURE," on all of which it casts a rich flood of light for the benefit of all who would understand the *true* causes of the *dispersion* of American agriculturists and the decline of American agriculture—a decline resulting, as we now perceive, and as we have before said, not so much from want of knowledge as from political causes; that is, from defects in national legislation, as irresistible, while they exist, as would be the falls of Niagara against the efforts of a man who should attempt with a straw to arrest it in its descent. We must ascend to and dry up the *source* of the evil.

We should feel ashamed to draw so often from Mr. Carey's book, if we

could elsewhere find so well presented the great truths which ought to be engraved on every farmer's mind.

"Ask the farmer of Pennsylvania why he does not associate with his neighbors to erect a furnace, and his answer will be, that three years since all the iron-masters were nearly ruined: that iron is now £10 per ton; but that before a furnace could be built, it would be down to £5, and their capital would be sunk. He, too, would say that charters were needed, and that charters could not be obtained.

"Here lies the secret of dispersion. Here is to be found the cause of the impossibility of concentration. The people of the United States have no power over their own actions. They waste annually more labor in hauling *their products to market*, and *their consumers from market*, to the west, there to be employed in raising more food and cotton than would build markets for themselves. They waste on the roads the manure yielded by the products of poor soils, and they leave on the rich ones the manure that has accumulated for ages, and that would render their poor ones rich, and, while they shall continue so to do, they must scatter themselves over the far-west; they must leave home, and friends, and school-houses, behind; they must continue to be hewers of wood and drawers of water on the poor soils, instead of becoming rich on the fertile ones; they must continue to obtain bushels where they might have tons; they must continue to do as do the people of India: cultivate poor soils and find themselves bogged in the rich ones, through which they have to drag their products to market.

"The annual loss to the people of the Union from the want of the power to concentrate themselves on the rich soils, is far more than the value of the whole exports of England *to all parts of the world*, and, were she to give them the whole, the gift would be injurious. It would tend only to scatter the people more widely, for concentration would then be impossible, and *without that the earth cannot be made to yield*, and, unless it be made to do so, the poor soils cannot be made rich. *Population makes the food come from the rich soils*, while depopulation forces men back to the poor ones.

"The number of states employed in producing cotton is ten. The whole product is about two millions of bales, and the average is therefore about two hundred thousand bales per state. To prepare a state for producing that quantity, and the food that is to be consumed by the men who raise it, has cost hundreds of millions of dollars. To place in that state machinery requisite for its conversion into cloth would cost ten millions of dollars, *or less than the amount annually wasted:* of labor for want of employment at home; of labor and manure in transporting the product to market; of labor and manure in transporting men to new lands; of crop from the want of hands to pick it; of freights, because of the increased demand for ships and wagons; and of prices, because of the surplus in the markets of the world; and *less than half the amount annually wasted*, because of the necessity for cultivating poor soils while rich ones lie idle.

"The cost of transporting the hides and the food to the shoemaker, his awl and his lapstone, is great, and all the manure is lost, and lost for ever. The cost of bringing the awl and the lapstone to the hides and the food is small, and all the manure is saved; and the great machine is improved, because the manure is saved and the shoemaker wants a house; and the house wants timber and stone, by the furnishing of which the land is cleared. A large portion of the people of the United States are busily employed in carrying the hides and the food to the awl and the lapstone, and in driving people who might use the awl to other places, where they must raise more hides and food.

"What is the remedy for this state of things? The answer is easy: England must be made to raise her own food, and she must be made to let other nations consume theirs. The resistance of the United States put an end to the navigation laws. Their resistance killed the right of search; their resistance killed the corn laws; their resistance will kill the colonial system, and give freedom to India and Ireland, to *the people* of England, and to themselves.

"To their resistance is due the fact that England has already turned her attention, in some degree, homeward; but the work is not half done. To make a short war, it must be a strong one. No set of men can now feel any confidence in erecting iron-works, cotton-mills, or woollen-mills; and until all shall feel full confidence, the little capitalists cannot get to work, and the business must remain in the hands of great ones, who can run great risks; and, while that shall be the case, but little will be done. Almost all that exists in the Union is the work of the millions of little men engaged in improving the great machine, and when they, the little farmers, and little mechanics, and little shopkeepers, shall get to work, the production of iron, and of cotton and woollen cloth, will go ahead as rapidly as farming has done, and then concentration will take place, and the rich soils will come into cultivation, and every county in the Union will have its iron, or its cotton, or its woollens exchange, and then land will double in product and in value. There is not one county that could not supply the stone, the timber, and the labor necessary for building a furnace or a mill, and the money necessary for the purchase of ma-

chinery: thus making a place of home exchange. Once built, further capital is not needed. The grower of corn, and hay, and oats, and wool, and the young men and young women who have labor to sell, perform their exchanges at the factory, which becomes a little bank in which each man buys a share while accumulating means to build a house or buy a farm, selling it again when the house is built or the farm is bought. Throughout the Union, south of the Hudson, there is scarcely a single county in which there is not more capital unemployed than would build such a place of exchange; and scarcely one in which, for want of such a place, there are not more people idle than would suffice to carry it on. Were each county to help itself, all would be helped.

"*Wealth is Power.* The people of the United States have the wealth. That wealth has given them power, dispersed as they were, to do much. Concentration will give them greater wealth and greater power. Their twenty-one millions produce at this moment a greater quantity of commodities than the people of England, while they build twice as many houses; make twice as many roads; apply thrice the labor to the improvement of land; build four times as many school-houses and churches; and print ten times as many newspapers. The machinery of production is greater than that of England, and all they now want is better machinery of exchange. Let the farmers and planters have this, and population will increase with greater rapidity than ever, for young men will stay at home and marry instead of going to the west; and tens of thousands of mechanics, and of coal and iron miners, will seek the United States; while laborers will come by hundreds of thousands, and every man will furnish a mouth to be fed, instead of, as now, furnishing hands to produce food. They will then be consumers of corn, and wool, and cotton, instead of producers—customers instead of rivals. Corn and cotton will be produced at less cost of labor, and wages in corn and cotton will be higher; while cloth and iron will be cheaper, and the farmer will cease to have to pray for bad crops in Europe; while the planter will find in the increased demand for his product consequent upon the higher wages of England and of Europe, a certainty of a good market for all he has to spare. Coffee, and tea, and sugar, will then be paid for in cotton cloths, and the men who make the cloth will be customers to himself and to his brother agriculturists of the north, who will use more cotton than at present; while Brazil and Cuba will want more cloths, because they will have a better market for their sugar. Every diminution in the machinery of exchange tends to give more time for improving the great machine of production, whether for cotton or sugar, wheat, rye, oats, or hemp; to increase the quantity produced; to increase the wages of the laborer and the profits of the capitalist, landed or moneyed; and to increase the comfort and happiness of all.

"Let but the people of the United States set the example of a determined resistance to the system, and it will be followed by all Europe. French artisans will then seek America and Germany, and France, too, will have to raise her own food. Her swords will be changed for ploughshares, and her forests will disappear, while her coal mines will be opened. She, too, will learn the art of concentration, and with each step of her progress, the few will become less and the many greater.

"The people of the United States owe this to themselves, and to the world. They enjoy a higher degree of happiness than has fallen to the lot of any other nation, and they should desire to aid their fellow-men in England, in Ireland, in Germany and in India, and by helping themselves they will help them. As colonies, India and Ireland will remain poor. As independent nations they will become rich, for they, too, will insist on the right of placing the consumer by the side of the producer.

"Westward, the star of empire wends its way. From the west to the east civilization has gone, and so it has yet to go; from the base of the Alleghenies to the foot of the Himalaya. The measure is one of peaceful and quiet, but determined, and it should be of united, action. It is one that interests

Every man that wishes to cultivate rich lands instead of poor ones:
Every man that would raise tons instead of bushels:
Every father that would wish to see his sons, and his sons' sons settle round him:
Every mother that wishes to see her daughters married:
Every son that would have a wife and a home of his own:
Every daughter that would have a husband:
Ever journeyman that would be an employer:
Every laborer that would have a farm and house, or shop, of his own:
Every property-holder that desires higher rents:
Every man that hates crime and loves virtue.
Every man that loves literature and art:
Every man that loves freedom:
Every man that loves *the people* of England: or of France:

Every man that loves Ireland:
Every man that feels for India:
Every man that loves his old fatherland, Germany:
Every man that loves free trade:
Every man that loves peace:
Every man that loves his fellow man:
Every man that loves his Creator:

Every man that desires that the great law of Christ, "Do unto others as ye would that others should do unto you," should become universally operative.

"It is the great work reserved for the people of these United States, and they have the power to accomplish it. It should be entered upon with the same feeling that animated the Puritans of old; the same that gave confidence to the men who, seventy years since, signed the Declaration of Independence. It should be preceded by a return to peace with an unfortunate neighbor, towards whom they now occupy the position of a strong man pummeling a weak one already on his back, to make him cry enough. That war has already cost more than would have given to every county in the Union a place for exchanging labor, corn, and cotton, or wool or iron ore, for cotton or woollen cloth, or iron; and if it continue another year, it will cost at least as much more. They have too much land already. They want but concentration to enable them to become both rich and strong.

WHAT INTELLECT MAY DO FOR AGRICULTURE.

Extract from a letter from Doctor Brewer, of Montgomery County, Maryland, to the Editor of the American Farmer.

"On entering upon my new avocation, although more agreeable to my inclination, not less arduous than the one I had abandoned, I soon discovered in my intercourse and conversation with my farmer-neighbors, a great lack of knowledge, and that most of their operations were performed without being able to give satisfactory reasons for what they did, save those of observation and hearsay—hence the same process was performed on a stiff or loose soil, argillaceous or silicious. Geology and chemistry were sealed books to most of them. It is self-evident, and will not admit of argument, that no man can successfully prosecute a business he does not understand, nor can an ignorant man prosecute as successfully a business as a learned one, each using equal industry. I would, therefore, advise, nay urge the farmers of every election district in the State to form clubs, and by no means neglect to create libraries, and thus furnish the materials of knowledge. There is no lack of native talents among the farmers—all that is wanting is excitement and cultivation. Let the means be provided for their mental cultivation, and I will, at the risk of being called a demented, or at least a visionary man, predict that, within the ensuing twenty years' farming operations will be performed with steam or electrical ploughs, to the great saving of hard labor and enormous expense. What would have been said of an individual who, twenty years ago, had suggested the probability of navigating the Atlantic and Pacific Oceans in steamships? Would he not have been called a madman? Most assuredly he would. *It is incalculable what advances might be made in the sciences of agriculture and mechanics, if proper means and encouragements were provided for the cultivation of the minds of those engaged in these pursuits.*"

All this is very true and very worthy of the most deliberate consideration, and more than that, of—*being acted on;* but why is it—the question arises on the surface—why is it that we nowhere see suggestions of a *demand from the general treasure of the country,* for establishing in each State a Normal School, to prepare teachers to give instruction in the common country schools, and thus have the seals of these "sealed books" broken? Why are not members of Congress commanded to propose and insist on it? No—the only question asked of those who offer for that most important of all trusts, that of *making the laws,* is, to what faction does he belong—and for what faction will he employ his talents and influence in obtaining slices of the public cheese? No inquiry is ever made of his knowledge of statistics, the condition, and the wants, and the claims of agriculture, but does he belong to my party? or rather is he one of the leaders to whom *I belong?* Is he the bell-wether of the particular flock in which I am counted, and with which I consent to be annually sheared, in that hope which springs eternal in my breast, that one of these days, I, or some lamb of mine, may come in

for a few grains, more than the rest, from Uncle Sam's great crib at Washington? These are the objects to which the free and independent republican farmers (so called) of the United States are too much in the habit of looking, and so will it ever be while party spirit is allowed to supersede all public spirit and all public considerations.

EXPERIMENTS WITH POTATOES AND GOOSEBERRIES.

APPROPRIATION OF PUBLIC LANDS FOR AGRICULTURAL INSTRUCTION.

Patterson, 5th August, 1848.

DEAR SIR:—You ask me the result of my experiment as to the potatoes I planted the middle of November last. I answer that as yet we have no rot or the appearance of rot—that the produce is fair, but not better than the same kind of potatoes planted first of May. Part of those planted last fall I covered with salt hay—the same those planted in May. On the whole I think the produce was, or rather is, greater on those not covered. It is true that the covered potatoes we have not had to hoe—but then the covering-in cost was fully equal to the hoeing. But of salt hay I can, as to gooseberries, speak favorably. Seeing that this was advised, I put round and under my gooseberry bushes a full covering of salt hay—this was just as they were coming in blossom—at same time I dusted the bushes with slacked lime, early in the morning. The result was either from salt hay—or lime—or both—that I had a large crop of uncommon fine berries, both as to size and flavor. I mean next spring to dust all my fruit—whether vines, bushes, or trees—with slacked lime one day, and wood-ashes on another—when in blossom, early in the morning; and am sure the result will be beneficial—the lime I am sure of—the ashes I believe in.

The more I have thought on this subject, the more I am convinced it is the duty of every well-wisher of his country to advocate the establishment by our government of agricultural colleges in each State and Territory, and that there is no way in which the lands belonging to the nation can be so usefully employed. R. L. C.

Note by the Editors.—We agree that the States, through their representatives, ought to insist on their share of the proceeds of the public lands—not to be appropriated by the general government to the establishment of Colleges in the States, or at the seat of government, where such colleges would be sure to become a den of laziness and corruption, for hunkering political hacks and favorites of the dominant party—no—these appropriations should, in each State, under State authority and control, be applied to the establishment of *Normal Institutes*, for *preparing teachers* for country schools. Teachers to apply to the art of cultivation the laws of nature and the sciences applicable to that art.

THE PRIZES IN MARYLAND,

So liberally offered by the editor of the American Farmer for the best essays on the restoration of worn-out lands, have been awarded in the following order:

1st, to EDWARD STABLER; 2d, to COL. HORACE CAPRON; 3d, to T. P. STABLER; whose names assure us that they will convey a mass of valuable practical matter through the pages of the American Farmer to all who have access to that sterling journal, as every farmer should (as we have said again and again) who does not value a bushel of wheat, or two of corn, above the information, of inestimable value, which every number of it contains. The names of the winners of such prizes ought to be inscribed on a record in the State Library, in which should be preserved the names of all farmers who best improve their own land, or teach others how to do it. Public sentiment will never be in the right state until such things are done.

PENNSYLVANIA AND HER INTERESTS.

From a journal that is distinguished for its opposition to the maintenance of that protection that is needed to enable the farmer to draw to his side the consumer of his products, we take the following—

"That Pennsylvania is destined to become one of the most opulent States that ever flourished, is so obvious a proposition as scarcely to require a specification of facts to sustain it, independent of all intercourse with foreign countries. Our coal, iron, flour and manufactures, furnish a source of wealth that is of giant and measureless value. Inexhaustible as these are, who shall dare to affix a limit to our power, or restrict the boundless sweep of our available resources?"

The answer to this question may be found in the fact that the coal and iron trades, from a state of high prosperity have fallen into a ruinous condition, and that coal mines are being abandoned, and furnaces are going out of blast, and rolling-mills are being closed, under the operation of the tariff of 1846, which is driving tens of thousands of miners and laborers to the west, there to produce food, when they would prefer to remain in the east, converting food into coal and iron. A limit *is being fixed* to the power of Pennsylvania. The west is protected by distance and higher freights, diminishing the competition of English iron, and the west can continue to produce coal and iron long after the mines and furnaces of the east have been closed. Of all the portions of the Union, there is none whose policy is so adverse to the prosperity of her people as is that of the "key-stone" State. Every farmer in it desires to have consumers brought to take their places near him, yet they unite in support of a policy that converts customers into rivals, and compels themselves to depend upon the variable markets of Europe for wheat, when they might have at their doors a steady and perpetually increasing market for potatoes and turnips, and hay, and milk, and fresh meat, for the spare labor of themselves and their children, their horses and wagons; and the timber that now encumbers rich lands, covered with manure that would enrich the poor ones they now cultivate. Of all the States of the Union, there is none that would profit more than Pennsylvania, from understanding that the plough *never has prospered*, and *never can prosper* at a distance from the loom and the anvil.

THE WOOL TRADE ABROAD—LAST REPORT.

The following, which we find in a late number of the Mark Lane Express, may prove interesting to some of our northern readers. In the letters of Colonel Randall on Sheep Husbandry in the South, every thing has been said that need be, to inform the agriculturist on that branch of his business. The reader may judge how much the subject is open to study, and how nice must be the judgment of an adept in the trade, when he sees it remarked, that *in the lots of wool* at a great depot, he could detect *"traces of defective feed!"*

Foreign Wool.—The imports of wool into London last week were 2152 bales, of which 1561 were from South Australia, 494 from Algoa Bay, and the rest from Germany, &c.

There are no less than 30,000 bales of colonial and other wool declared for sale on the 22d inst., and in the interior there is very little doing.

Accounts of the 10th inst. from Breslau state that wool was much reduced in price, and would have been worse, but for the buyers who attended from England and Hambro'. The sale of Zollverein fabrics was only accomplished by manufacturers submitting to lower prices; and they had purchased raw wool, although scarcely knowing how they could avoid further serious losses by keeping their mills going. The great object, however, was to keep the people employed. There were 25,000 quintals of wool left unsold of the 59,000 offered, and prices were 8 to 10 per cent. lower.

Leeds, June 16.—We are unable to note any improvement in the foreign wool trade since our last report, the demand being still very limited, and prices almost nominal.

Breslau Wool Fair, June 9.—Without entering upon an extended explanation of the well-known causes of the present unheard-of commercial crisis, we only observe, that chiefly an unexampled want of credit, created by the critical state of politics and the uncertainty of the future, has been the principal cause of the great reduction of prices in the present fair. Thanks to the extraordinary concurrence of English and Hamburgh buyers, joined to the purchases of our home manufacturers, the result of the market is not worse. The latter bought considerable quantities in order to give their working people further employment and support, though they cannot expect the ordinary sale.

The quantity brought to market was—

Of Silesian wool about	39,500 cwts.
" Posen " "	8500 "
" Old Stock "	11,000 "
In all about	59,000 "
In the June fair of 1847, we had about	47,800 "
Therefore in this year we had a surplus of about	11,200 "

The wash and manipulation of the wools were perfect, yet there could be sometimes observed *traces of the defective feed*, which, together with an uncommon mortality among the flocks, has caused this time a minus of 8 to 10 per cent. in clipping.

The reduction of price has been—

	$ per cwt.
For selected and high-bred wools	20 to 30
" fine and middle fine	22 " 30
" lower qualities	18 " 25

It will be understood that some lots had a smaller, others a greater loss to undergo.

The following prices were obtained—

	$ per cwt.
For Silesian super select wools from	90 to 110
" " select	80 " 88
" " high-bred	70 " 78
" " fine	60 " 68
" " middle fine	50 " 55
" " low	40 " 46
" " double clept wool, fine	40 " 45
" " middle fine	32 " 38
" " low	26 " 30
" Posen fleece wool, fine	50 " 60
" " " " middle fine	40 " 45
" " " " low	35 " 38
" Silesian lambs' wool, high-bred	80 " 97
" " " fine	65 " 70
" " " lower qualities	48 " 53
" " skin wool	— " —
" " slipes	25 " 35
" " locks	30 " 40
" Polish ditto	20 " 28
" white Tigara wool (ordinary washed)	17½ " 20
" " " (well washed)	22 " 23
" black "	— " —

There has been a great quantity of skin wool in the market, and none of it sold except a few small parcels, the very low price of which not serving as a guide, we do not quote them. The principal buyers have been English manufacturers and dealers, as well as many Hamburgh, Netherland, and

Belgium purchasers. The little cloth makers of the country, as well as all Austrian and French buyers, have kept away. We had this time no supplies of Hungarian, Austrian, and Bohemian wools; but there may be found great lots of them among the old stock. There has been bought but very little in the warehouses, and the quantity of wools left in first and second hand amounts to about 20,000 cwts. The greater number of the buyers are still here, and many a bargain might yet be made.

D. C. S. Gunsburg, Wool-broker.

COWS AT THE SHOW

OF THE ROYAL AGRICULTURAL SOCIETY OF ENGLAND, IN JULY LAST.

Written for the Model American Courier, by the Editor of the Plough, the Loom and the Anvil.

After thirty years of competition and high prices in England, (the best bulls and rams letting for the season for five times as much as they would sell for in our country,) choice animals seem to maintain their prices wonderfully. The last show of short-horn cows was said to be the best ever exhibited *in England*. "For the general prize, Violet, purchased by Mr. Hopper for 350 guineas ($1750), *came last*. She was met by the two prize-cows, Cherry and Hope, and was defeated by Hope. Each of those cows is a winner of the Royal Agricultural Society's 1st prize, one at Newcastle and the other at Northampton; so that in this class for the local prize to-day, we had the three best cows in England—three winners of the 1st prize in three successive years, for competition. Hope, in this case, will not deceive her friends. It would be absurd to attempt superficial criticism of such animals as these. 'Here stand three animals, worth 1000 guineas, and I will give 600 guineas [$3000] for two of them,' was the ejaculation of an eminent Lincolnshire breeder who was examining them.

TO THE FARMERS OF PHILADELPHIA COUNTY AND VICINITY.

The Philadelphia Society for Promoting Agriculture will hold their annual exhibition on Thursday the 5th, and Friday the 6th October, at the Rising Sun village, about three miles north of the city.

The Committee of arrangement would earnestly appeal to you, *one and all*, to assist in rendering this exhibition what it ever should be, the great centre of attraction; let us all feel a duty to contribute something. Manufacturers and mechanics take a pride and find their interest promoted in exhibiting the result of their labor and genius. Let us unite in displaying the wondrous works of Providence and the effects of our industry. Blessed, as we are, with a soil capable of the greatest production and in the largest variety, we should take an honest pride in not permitting those enjoying less natural advantages to excel us. To all, then, we say, prepare your offering, that we may make this exhibition sustain the reputation of Pennsylvania for the fairest fields and largest barns, and show that we know how to use the one to fill the other.

An address will be delivered on the second day of the exhibition by Dr. G. Emerson, of Philadelphia, a gentleman of well-known scientific acquirements and practical experience as an agriculturist.

The trial of ploughs and ploughing will take place on the second day of the exhibition. The list of premiums embraces almost every thing of interest to the farmer. On behalf of the committee of arrangements,

Samuel C. Ford, *Chairman.*

Philadelphia, September 13, 1848.

CINNAMON.

The *Laurus cinnamomum*, from which tree our spice called cinnamon is procured, is a native of the East India islands, in many of which it grows wild; but owing to the narrow policy of the Dutch, who, till the year 1810, possessed most of the Spice Islands, it has never been cultivated in any of them, except in the Island of Ceylon, where large plantations are reared, which supply the rest of the world with this delicious and valuable article. The tree, in its uncultivated state, grows to the height of from twenty to thirty feet, but, in the cinnamon plantations it is not allowed to rise above ten. The leaf resembles that of our laurel, except in being strongly marked by three principal nerves, which take their rise in the footstalk, and run lengthwise through the leaf. At its first budding the young leaf is of a brilliant red, changing gradually from that colour to a pea-green; it becomes in its maturity of a dark olive upon the upper side, and of rather a lighter shade upon the under surface. The fine tint of the young shoots is brilliantly contrasted with the rich hue of the full-grown leaves. The blossom is white, having the corolla six-parted, and about the same size as that of the lilac, which it also resembles in growth, except that the footstalks to the flowers of the cinnamon tree are longer than those of the former shrub, consequently the bunch of flowers is less compact. The blossoms are produced from the axillæ of the leaves, or from the extremities of the branches; the scent, although weak, is extremely pleasant, resembling a mixture of the rose and lilac. The fruit is a small berry of the form and consistence of an olive, and is filled with a bony kernel. It ripens in the latter end of autumn, and is gathered by the natives for the purpose of extracting its oil, which they use to perfume their hair and to anoint themselves with upon grand occasions. This oil, when congealed, becomes of a solid substance like wax, and is formed into candles, which are reserved for the use of the King of Candy. The oil also is burned in the lamps of his audience-chamber when he receives the ambassadors of other states.

The *Laurus cinnamomum* grows wild in many parts of Ceylon, but it flourishes in the south-west angle of the coast only, between Negumbo and Matura, where the soil is a fine white sand, and where the air is moist, and rains fall every month. In the northern extremity of the island, where the climate is dry and sultry, not a bush of it is to be seen. The principal woods or gardens where the cinnamon is procured lie in the neighborhood of Columbo. The grand garden near that town occupies a tract of country twelve miles in circumference. Others of a smaller size are situated near Negumbo, Point de Galle, and Matura. The prospect around Columbo is exquisitely beautiful: the plantation which covers the plain is bounded on one side by a broad belt of cocoa-nut trees, and on another is washed by the winding lake of Columbo; beyond this luxuriant foreground rise groves of evergreens, interspersed with tall clumps, among which the cashew tree is conspicuous; and the whole is crowned by a long and lofty range of Candian mountains. The cinnamon gardens afford delightful rides to the inhabitants of Columbo, roads being cut among the shrubs which make a winding circuit of seven miles. The ground is gently undulated, and the rich green of the laurel is enlivened by innumerable species of beautiful plants and flowers, springing up spontaneously and blooming in perpetual succession.

The cinnamon tree emits no scent while growing, except a little from the blossoms; the footstalks and leaves are slightly aromatic, but it is the bark alone which gives out that delicious odor to which no other perfume bears any resemblance. Moore's simile is perfectly true to nature as respects this tree:—

> The dream of the injured patient mind
> That smiles at the wrongs of men,
> Is found in the bruised and wounded rind
> Of the cinnamon, sweetest then.

There are several different sorts of cinnamon trees in Ceylon; of these only four are esteemed fit for use: they are, the *Rasse Coorundoo*, or honey cinnamon; the *Nai Coorundoo*, or snake cinnamon; the *Capara Coorundoo*, or camphor cinnamon; and the *Cabatte Coorundoo*, or bitter cinnamon. From the third kind a gummy substance containing camphor is exuded. The shrub may be cultivated in either of the following ways:—By seeds, which must be sown in the rainy season; by shoots cut from large trees; by layers; and, fourthly, by transplanting the old stumps.

The first method is of course the slowest, as it is ten years before the tree reaches its greatest perfection. The second mode is less tedious, but, unless the sprouts be continually watered, they do not thrive; the cuttings must be taken very young—if they have more than three leaves they die. The third method, by laying down the young branches, is also of slow progress; trees thus raised not being fit for use till they are

eight years old. The fourth manner is that generally practised. The roots, carefully transplanted, yield shoots of the proper size twelve months after their removal; but great care must be taken that none of the small fibres are injured; as, if they receive the slightest hurt, the plant certainly dies: even a scratch upon the root of a young plant will destroy it. Around the old roots spring up a multitude of suckers, which yield the finest cinnamon.

The cinnamon tree blossoms in January; in April the fruit is ripe, and soon afterwards the business of decortication begins. May and June, which are the most favorable months, are styled the *great harvest;* November and December, in which also the barking is practised. are called the *little harvest.* The art of stripping the cinnamon tree is an employment of itself, and of the meanest kind. For this reason it is left to the Cholias or Coolies alone, who form the lowest of the native castes. Any other individual who should follow this business would be ignominiously expelled from his tribe. The manner in which the workmen judge whether a branch or offset be fit for cutting is this:—When a tree bears fruit, it is supposed to be in a healthy state; and to prove whether the bark be ripe, the Choliah strikes his hatchet obliquely into a branch; if, on drawing it out, the bark divides from the wood, the cinnamon has attained its maturity; if not, it must remain growing some time longer. The shoots which are cut down are from three to five feet in length, and about three quarters of an inch in diameter. When a Choliah has cut the quantity of sticks which each man is obliged to furnish daily, he carries them to a hut or shed situated in an open part of the garden, where, with the assistance of a companion, he thus strips off the bark. The first part of the operation after removing the buds and leaves, is to scrape the rod thoroughly, but gently, so as to remove the outer bark or skin, which, if left on, would embitter the flavor of the cinnamon. The knife used is of a peculiar form, being convex on one edge, and concave on the other, in order to facilitate the process. The bark is next cut along with the point of the knife from one end of the branch to the other, twice, and after being gradually loosened with the convex edge of the knife, is stripped off in one entire slip, about half the circumference of the branch. The smaller pieces are then inserted into the larger ones, and are laid out on mats to dry; when, the moisture quickly evaporating, the tubes contract and form solid rods, acquiring at the same time the rich brown color in which they appear to us. These rods are tied together in bundles, and carried to the government storehouses, in order to be packed for exportation. The method of packing is this:—Each bundle being formed of the weight of ninety-two pounds, and about four feet in length, is firmly bound with cords, and sewed into a double covering of coarse cloth. When one layer of bales is stowed in the hold of a ship, a quantity of loose black pepper is thrown in above it, and all the crevices are completely filled up with the latter spice. The surface being then smooth, another set of bales is laid down, and packed in the same manner. The pepper, by drawing the superfluous moisture to it, preserves and improves the cinnamon, which, at the same time, enriches its own flavor: thus the two spices prove mutually beneficial to each other. As pepper is not grown in sufficient quantities in Ceylon to answer the demand for packing, a great deal is imported for that purpose from Malabar.

The cinnamon bark, before it is dried, is of a pale yellow, and about the thickness of parchment. The best is rather pliable, and by that quality is distinguished from the inferior kinds, as well as by its color; the more ordinary being thicker and browner. After that part of the cinnamon which is fit for exportation is sent off to Europe, the fragments and small pieces are collected and put into large tubs, with just enough water completely to cover them. This mass, after being left for six or seven days to macerate, is distilled over a slow fire, and cinnamon-water is produced, with the oil floating upon the top of it. The latter is then carefully skimmed off, and put into bottles, which, after being sealed, are brought to the governor, by whom they are placed in a chest properly secured. The oil is extremely valuable, as the quantity is less than that procured from an equal weight of any other spice.

The cultivation of cinnamon, as at present practised, is not of very long standing in Ceylon; the trade formerly depended upon the produce of the trees growing wild in the island. The Dutch governor, Falk, who died at Columbo in 1781, not believing in the common notion that cinnamon was good in its wild state only, determined to make the experiment of cultivation with it. Accordingly, he raised a few plants from seed in his garden at the Grand Pass near Columbo, but, after flourishing for a time, they withered and died. On accurately investigating the cause of his disappointment, it appears that a Cingalese, who earned his livelihood by barking cinnamon in the woods, fearing lest his employment should, by the cultivation of the shrub, become more easy and less profitable, had secretly besprinkled the plants with hot water.

LOVE OF ANIMALS FOR THEIR YOUNG.

I HAVE always great pleasure in seeing the affection which animals have for their offspring, and which sometimes shows itself in an extraordinary manner. A hen who has hatched young ducks, will follow them in her agony into the water, and will even sacrifice her life to preserve the lives of her chickens; and whoever has seen a dog break into a covey of young partridges, will have had one of the strongest proofs which exists of the force of natural affection. The following is a striking instance of parental attachment in a bird. A gentleman had directed a wagon to be packed with sundry hampers and boxes, intending to send it to Worthing, where he himself was going. For some reason, his journey was delayed; and he therefore directed that the wagon should be placed in a shed in his yard, packed as it was, till it should be convenient for him to send it off. While it was in the shed, a pair of robins built their nest among some straw in it, and had hatched their young just before it was sent away. One of the old birds, instead of being frightened away by the motion of the wagon, only left its nest from time to time for the purpose of flying to the nearest hedge for food for its young; and thus alternately affording warmth and nourishment to them, it arrived at Worthing. The affection of this bird having been observed by the wagoner, he took care in unloading not to disturb the robin's nest; and the robin and its young ones returned in safety to Walton Heath, being the place from whence they had set out: the distance travelled not being less than one hundred miles. Whether it was the male or female robin which kept with the wagon, I have not been able to ascertain; but most probably the latter, for what will not a mother's love and a mother's tenderness induce her to do?

Fishing the other day in Hampton Court Park, I disturbed a moor-hen who had just hatched. Her anxiety and manœuvres to draw away her young were singularly interesting. She would go a short distance, utter a cry, return, and seemed to point out the way for her brood to follow. Having driven her away, that I might have a better opportunity of watching her young ones, she never ceased calling to them, and at length they made towards her, skulking amongst the rushes, till they got to the other side of the pond. They had only just left the shell, and had probably never heard the cry of their mother before.

If you go near the nest of a lapwing, one of the old birds will fly close to you, and try to draw you from the nest. I have seen my dog almost struck by one of the birds as she flew past him; and they seem quite to forget their own danger in the endeavor to preserve their offspring. It is said that when a hind hears the hounds, she will allow herself to be hunted, in order to lead them away from her fawns.

In the Royal Parks I have observed a doe come up to a dog, who has approached the lair where her fawn was concealed, and putting her feet together, she has made a spring, and alighting upon him, has either maimed or killed him. A friend of mine was walking in Hadley Park, Worcestershire, when the discharge of a gun reverberated through the woods. Soon afterwards a bleeding fawn bounded by, followed by the keeper's hound, and, in close pursuit of the hound, came a doe, the dam of the wounded fawn. Loss of blood so weakened the poor fawn, that the dog soon brought it to the ground. The doe, losing all her natural timidity in affection for her offspring, attacked the hound with the utmost ferocity, nor did the interference of the keeper intimidate her. The man terminated the sufferings of the fawn with his knife, and carried it from the place: and when the dam, as if agitated by excessive grief, had surveyed the pool of blood, she followed the dead fawn and its destroyers, uttering a tremulous cry of maternal distress. This cry I often hear during the season for killing fawns, and it is one of peculiar agony.

A cow was driven from Bushy Park and sold in Smithfield market, her calf being left at the head keeper's yard in the park. Early the next morning, this cow was found at the gate of the yard, having made her way through all the intricacies and impediments of London, and traversed twelve miles of road, in order to get to her calf again. She must also have watched the opportunity when the park gates were opened, to get through them.

A gentleman who had resided for several years in New South Wales, related the following circumstance, which he assured me he had frequently witnessed while hunting the kangaroo: it furnishes a strong proof of the affection of that animal for her young, even when her own life has been placed in the most imminent danger. He informed me that when a female kangaroo has been hard pressed by dogs, he has seen her, while she has been making her bounds, put her fore paws into her pouch, take a young one from it, and then throw it as far on one

side as she possibly could out of the way of the dogs. But for this manœuvre her own life and that of her young one would have been sacrificed. By getting rid of the latter, she has frequently effected her escape, and probably returned afterwards to seek for her offspring.

Such is the jealous care which a cat shows for her kittens, that I have known one to remove a whole litter to the leads at the top of a house after they have been handled by a stranger, though she had previously allowed every inmate of the house to touch them.

It has been most beautifully and providentially ordered that the process of suckling young is as pleasurable to the parent animal as it is essential to the support of the young. It is probably from a deficiency in the flow of milk that we sometimes hear of animals destroying their progeny. Where there is a redundancy of it, and a painful sensation is produced, animals will allow the young of almost any other species to suck them. Thus a panther has been nourished by a bitch, and a puppy by a cat which had been deprived of her kittens. As the mammæ of animals become painful when overdistended with milk, they are reminded of their helpless young, and are thus led to visit them periodically at those times when sustenance is necessary for them.

The following fact connected with this subject is too curious to be omitted. It may excite a doubt in the minds of many persons, but it was so frequently witnessed by those on whose veracity I can depend, that I have no hesitation in relating it.

A cat belonging to Mr. Smith, the respectable bailiff and agent of the Earl of Lucan, at Laleham, is in the constant habit of taking her place on the rug before the parlor fire. She had been deprived of all her litter of kittens but one, and her milk probably incommoded her. I mention this in order to account in some degree for the following circumstance. One evening, as the family were seated round the fire, they observed a mouse make its way from the cupboard which was near the fireplace, and lay itself down on the stomach of the cat, as a kitten would do when she is going to suck. Surprised at what they saw, and afraid of disturbing the mouse, which appeared to be full grown, they did not immediately ascertain whether it was in the act of sucking or not. After remaining with the cat a considerable length of time, it returned to the cupboard. These visits were repeated on several other occasions, and were witnessed by many persons. The cat not only appeared to expect the mouse, but uttered that sort of greeting purr which the animal is so well known to make use of when she is visited by her kitten. The mouse had every appearance of being in the act of sucking the cat, but such was its vigilance that it retreated as soon as a hand was put out to take it up. When the cat, after being absent, returned to the room, her greeting call was made, and the mouse came to her. The attachment which existed between these two incongruous animals could not be mistaken, and it lasted some time. The fate of the mouse, like that of most pets, was a melancholy one. During the absence of its nurse, a strange cat came into the room. The poor mouse, mistaking her for its old friend and protectress, ran out to meet her, and was immediately seized and slain before it could be rescued from her clutches. The grief of the foster-mother was extreme. On returning to the parlor she made her usual call, but no mouse came to meet her. She was restless and uneasy, went mewing about the house, and showed her distress in the most marked manner. What rendered the anecdote I have been relating the more extraordinary, is the fact of the cat being an excellent mouser, and that during the time she was showing so much fondness for this particular mouse, she was preying upon others with the utmost avidity.

A gentleman, now residing in Sussex, had a cat which showed the greatest attachment for a young blackbird, which was given to her by a stable-boy for food a day or two after she had been deprived of her kittens. She tended it with the greatest care; they became inseparable companions, and no mother could show a greater fondness for her own offspring than she did for the bird. This incongruity of attachment in animals will generally be found to arise either from the feelings of natural affection which every mother is possessed of, or else from that love of sociability, and dislike of being alone, which is possessed more or less by every created being.

The following is, perhaps, a still more extraordinary instance of the affection which one animal entertained for another not of its own species. Mr. Edwards, Lord Jersey's trainer at Newmarket, had the care of his lordship's celebrated horse Glencoe, and a great affection existed between Glencoe and a large Newfoundland dog of Mr. Edwards. The dog lived in the stable with the horse, and followed him when he was taken out to exercise. While this friendship existed, Glencoe was parted with. The dog was inconsolable, refused to eat, and it was supposed would have died. On being brought from the stable by his master into his sitting-room, which had several portraits

of horses hung against the wall, and that of Glencoe among the rest, the dog fixed his eyes on the likeness of his late companion. At first he began to wag his tail gently, but at last showed the greatest excess of joy, jumped up to the picture, and it was evident that he had discovered the likeness of his absent friend. This anecdote may be thought extraordinary, but the celebrated Dr. Pearce, Bishop of Rochester, mentions one almost similar to it. He says that when he was one day visiting Sir Godfrey Kneller at his country-seat at Whitton, near Hounslow, he carried him into his summer-house, where there was a whole-length picture of Lady Kneller, which was much damaged and scratched at the bottom. Upon the Bishop's expressing a curiosity to know how it became so injured, Sir Godfrey said it was owing to a favorite dog of Lady Kneller's, who, having been accustomed to lie in her lap, scratched the picture in that manner in order to be taken up. This made the bishop mention that Zeuxis had painted a bunch of grapes upon a boy's head so naturally that a bird pecked at them. Sir Godfrey answered, "that if the boy had been painted as well as the grapes, the bird would not have ventured to peck at them."

Those agreeable naturalists, Messrs. Kirby and Spence, assert that insects are capable of feeling quite as much attachment to their offspring as the largest quadruped, will undergo as severe privations in nourishing them, expose themselves to as great risk in defending them, and, in the very approach of death, exhibit as much anxiety for their preservation. I had an instance of this the other day in the case of a spider, and I watched its whole proceeding with infinite gratification. I found its nest in the under part of the broad leaf of the striped garden-grass. It was covered with a thick sort of silky web or cocoon, with an opening to enable the spider to go in and out. On taking off the covering, which consisted of two different layers, I found a deposit of eggs closely packed together, and the whole collection was about the size of a large pea. Having completely exposed the eggs, I put the spider and the part of the leaf to which the eggs were attached under a glass. In turning down the glass, the spider was at the upper part of it, but she no sooner perceived her eggs than she ran to them with the greatest eagerness—covered them as much as she was able with her body, sensible, no doubt, how necessary warmth was for them—and soon began to spin another silky web over them. Nothing seemed capable of disturbing her during this process, and there was no mistaking the affection which prompted her. This she showed in another remarkable way. I had placed the portion of striped grass, which was nearly two inches in length and about three-quarters of an inch in breadth, upon a marble mantelpiece in my sitting-room. One of the first operations of the spider, as I said before, was to cover her eggs with a web. She next proceeded to fix one of her threads to the upper part of the glass which confined her, and carried it to the further end of the piece of grass, and in a short time had succeeded in raising it up and fixing it perpendicularly, working her threads from the sides of the glass to the top and sides of the piece of grass. Her motive in doing this was obvious. She not only rendered the object of her care more secure than it would have been had it remained flat on the marble, but she was probably aware that the cold from the marble would chill her eggs, and prevent their arriving at maturity: she therefore raised them from it in the manner I have described. On the evening of the fourth day, two of her eggs were hatched. On coming into my room the next morning, neither eggs nor young spiders were to be seen. I was satisfied that they could not have made their escape, as the edge of the glass rested on the marble so closely that the point of a needle could not be introduced under it. After minutely examining the spider, I was perfectly sure that not one of her young had attached itself to any part of her body, in the manner described by Mr. Kirby.* The abdomen of the spider was however three times the size it had been the day previous, being very much distended, and shining like the abdomen of a bee when it returns to the hive loaded with honey. Those who witnessed the altered appearance of the spider were, like myself, convinced that the young had been introduced into the abdomen. The death of the spider soon afterwards prevented further observations.

A large breed of spiders abound in the palace of Hampton Court. They are called there "cardinals," in honor, I suppose, of Cardinal Wolsey. They are full an inch in length, and many of them of the thickness of a finger. Their legs are about two inches long, and their body covered with a thick hair. They feed chiefly on moths, as appears from the wings of that insect being found in great abundance under and among

* Mr. Kirby says, the young of the spider (*aranea saccata*) attach themselves in clusters upon the back, belly, head, and even legs of the mother; that in this situation, she carries them about with her, and feeds them until their first moult; and that upon disturbing her, thus covered by hundreds of her progeny, it was amusing to see them all leap from her back and run away in every direction.

their webs. In running across the carpet in an evening, when the light of a lamp or candle has cast a shade from their large bodies, they have been mistaken for mice, and have occasioned no little alarm to some of the more nervous inhabitants of the palace. A doubt has even been raised whether the name of cardinal has not been given to this creature from an ancient belief that the ghost of Wolsey haunts the place of his former glory under this shape. At all events, the spider is considered as a curiosity, and Hampton Court is the only place in which I have met with it.

The common earwig has generally a brood of young ones about her at this time of the year, and she shows the greatest care and anxiety for their safety. If she is disturbed, nothing can exceed her agitation. She has some means of collecting her young together after they have been scattered. I have seen them fall to the ground from a height of two or three feet, and reassemble at the same place. Mr. Kirby says that "this insect sits upon her eggs, and approaches the habits of the hen in the care of her family. As soon as the young are hatched, they creep like a brood of chickens under the belly of the mother, who will sit over them for hours together, and shows the greatest agitation when she is disturbed."

MORAL TRAINING.

So much has been said on this subject in the Tract on the Management of Infants, that little remains to be added.

That which we would here more emphatically insist on is, that in youth, as well as in infancy, the child should, as far as reason or convenience will allow, be suffered to associate with his parents. Socially, the child is the equal of his father and mother. He is younger, but in other respects he is an equal, and should be treated as such. It may seem strange that we should speak of what seems to be an evident truth; but this, like many other truths, is unfortunately apt to be lost sight of. We almost everywhere see children treated as if they were inferior beings, and kept systematically out of sight, like toys, only to be shown and fondled on certain occasions. In a right domestic management, however, the children are to be viewed as only younger men and women, and respected accordingly. Much practical advantage will arise from this consideration, as will be immediately explained.

A child has every thing to learn, and he learns best by having good examples for imitation. If you, therefore, desire to see your children well-behaved, do not leave them in the charge of servants, who are for the most part ignorant, and otherwise not well adapted to train the minds of young persons. Rear and superintend your children yourself, at least in all matters of general intercourse. They may be dressed and cleaned by domestics, and domestics may also walk out with them; but let them spend a considerable part of their time with you daily in the parlor. In short, you, the parents, are to be the model to be imitated, not the girl who is hired to sweep out the rooms, or to do any other humble office in the household. Being thus the companions of your children, and conscious that every word you utter, and every thing you do, will be imitated, you will of course take care to say and do nothing which can lead to improper habits.

Temper.—In all families there are differences of character: one child will be lively, another dull; some will have good, others bad tempers. It is of first importance to cultivate a cheerful temper in children, and therefore the greater care will be required in this respect when there appears to be any deficiency in the natural disposition. Much will depend on how you treat the child. If it be peevish, do not scold or threaten it; and, we may add, in no circumstances get out of temper with it.

The mother of a family with whom we are acquainted pursues the following excellent plan with her children. When one of them cries, or is otherwise in bad humor, she says, "Oh, I see you are not well, my dear; I think you had better go to bed, and I will give you a little medicine." This kind of sympathy usually sets all to rights. The disinclination to be put to bed and take medicine acts as a sovereign remedy.

Some parents are constantly telling their children not to do this, and not to do that. This is not treating them as equals, and too prominently establishes the principle of inferiority. Children should not be talked to as if they were dogs. They should be requested, not ordered; at least in all ordinary matters, and when they commit no act of insubordination. "I should think you had better not meddle with that knife; it is rather sharp." "I would let alone that piece of broken glass; it is dangerous." "Don't you think this would be a pleasant day for a walk?" "I thought you would not have done so foolish a thing." "I am sorry we cannot bear that noise; and I think you had

better go to the nursery." By accustoming children to such mild language, they learn to be mild themselves. A soft word will do more with such children than a torrent of reproof.

Firmness, however, is as requisite as mildness in family management. On this point we beg to extract the following observations from the work of Mr. Goodrich on *Fireside Education*:—"Some children are easily managed, but there are few who will not sometimes try to have their own way. At one time they will attempt to evade, at another they will brave, authority. In this species of strife they are often sharp-witted and dexterous, and sometimes intrepid, pertinacious, and headstrong. If they succeed once, they gather courage; if twice, they feel assured; if thrice, they triumph. The only safe method is for the parent to meet the first resistance of the child with firmness, and by no means to permit himself to be baffled either by evasion or defiance. But great caution is to be used. The object should be, not merely to make the child obey externally, but internally; to make the obedience sincere and hearty, and to make it flow alike from affection, a sense of duty, and a conviction that he consults his true interest in so doing. All these motives should be brought to concur in the act; if any one of them is wanting, the obedience is imperfect. To accomplish this thorough subjection of the child to parental authority, it is obvious that great prudence is necessary. There must be no violence, no display of temper, no angry looks, no hasty words. Before he can expect to govern a child, a parent must first learn to govern himself. His own passions being under control, his heart chastened, and the traces of vexation swept from his countenance, he may meet the rebellious child, assured of triumph. That child might resist threats, and be hardened by force; but it will not long resist patient kindness, tender remonstrance, affectionate counsel."

Truth.—Accustom your children, from the earliest infancy, to speak the truth; and this they will do, if not prevented by servants, or by their parents. How lamentable is it to find persons so lost to all sense of obligation as to encourage deceit in their children! A mother will be heard admonishing them to conceal such a thing from the knowledge of their father—to say they did not see so and so, &c. Such deceits are ruinous to the moral character of children, and, we need not say here, that they are grossly wicked.

Children should never hear a falsehood uttered. The very idea of there being such a thing as untruth ought not to come across their mind, unless, indeed, when the criminality and fruits of falsehood require explanation and reproof. Every encouragement, even to the pardoning of offences, should be given to truth. Cultivate in the child's mind a love of candor, straightforwardness, honor, and integrity, along with a corresponding hatred of falsehood, equivocation, dishonesty, and meanness. Lessons in these things, however, will be of little use. The cultivation must be by the training of motives and principles into confirmed habits, and that can be realized only within the family circle.

Religious impressions, in the same manner, require to be made in the first place by parents as much as possible by means of practical habits and personal explanations. As the mind expands, the leading characteristics of Creation and Providence, the nature of God, and the reasons for his being an object of veneration and worship, may be explained. And from these, as starting points, all proper explanations as to religious doctrine and duties will naturally diverge.

Some parents, either because they are themselves ignorant, or because they will not take the trouble, leave their children to pick up religious knowledge from catechisms, the learning of which they rigorously enforce. We fear no little mischief arises from this practice. Few young people can understand the meaning of catechisms, and the obligation to learn them as a task is apt to disgust them with what ought to be the grandest of all subjects of meditation. We advise great caution in the way of enforcing catechetical instruction.

THE ABSENT ONES.

Amidst the bright, the free, the gay,
How often do we turn away
From all assembled near;
And, passing by all present things,
How rapt'rously our bosom clings
To those who are not here.

The absent ones! whose flags unfurl'd
Are streaming on the wide, wide world,
Breasting its waves of strife;
Struggling amidst its bubbling foam,
To keep their footing on that home,
The battle-field of life.

Emily Varndel.

REPORT ON GARDENS IN MONTGOMERY COUNTY, MARYLAND.

"The following are the names of the ladies in Montgomery county," says the *American Farmer*, "whose gardens were inspected by a Committee of the Agricultural Society," each of whom receive, in this report, what the Editor of that paper states is a well-merited compliment. It is not easy to say in such cases what is the just measure of merit, unless we could tell what assistance and encouragement the good lady has had from her husband. She ought to have, if he can command it, not only the physical force, but the intellectual aid which is necessary—and first of all, she should be encouraged by at least some show of taste for horticulture on his part. That taste may be displayed in various ways, to give her assistance and satisfaction. She should be supplied with the requisite publications and papers on the subject, and these may be had for less money than he often loses, by neglect of his affairs while going to a scrub race between horses, or a yet more useless race between scrub politicians. But the taste for reading is to be begotten while people are young, and he who neglects to provide the means to encourage it to the extent that he can afford them, deserves to be treated as was the mother by the son, who, under the gallows, bit off her ear for neglecting to punish him when he stole the first spoon. Yes, we have no patience with those who can in any degree appreciate the value of the love of books, and the happiness of which it is the source, and who yet neglect, as too many do, the least appropriation or effort in the way of a *family library*. If any money is spared, in the way of provision for reading, beyond the purchase of a spelling-book and the six-penny almanac, the next thing is for a *party newspaper*, in which he can see half his countrymen unsparingly abused, as a set of knaves and fools, and there he stops in the way of provision for giving to his family a taste for books, and the nameless delights, and even power, which result from increasing knowledge. That knowledge is power, we saw happily illustrated, as follows, in a late number of the *Vermont School Journal*, as thus:

"We will not write an essay on this theme. A few facts may be of use by showing how good schools promote the efficiency of manual labor; how by a little headwork an immensity of hard work may be saved, or the hourly value of hand work vastly increased.

"Suppose we have a block of squared granite, weighing 1080 lbs., to move. It has been found by experiment, that

"To draw it along the floor of a roughly chiselled quarry, required a force equal to 780 lbs.

"To draw it over a floor of planks, 652 lbs.

"If placed on a platform of wood, to draw it over the same floor, 600 lbs.

"If the surface of the wood be soaped, 182 lbs.

"With the same rollers on a wooden platform, 22 lbs.

"With the latest railroad improvements, as to track and wheels, less than 4 lbs.

"The 780 lbs. in the last, represent the muscular strength required, the difference between the two—or 776—the power of knowledge."

Even the slightest word of approbation and pleasure, at seeing a sprig of honeysuckle stuck in the print of butter on the breakfast table, or a rose in her own bosom, would encourage the good wife to cultivate for herself and daughters a skill in horticulture and floriculture; but where his thoughts are about nothing but the tobacco and corn, and he comes in merely to despatch his meals, as the horse does, from hunger and necessity, what encouragement to her to keep even her house in order? It would then be the height of injustice, in many cases, to conclude that because, as is often the case, there is nothing in the garden but a few straggling Dutch cabbages, and some kidney-beans or potatoes, that therefore the housewife is not willing and ready to do her part towards the comfort and embellishment of the homestead. Let us, then, be prompt to give praise where it is due, but be slow to draw unfavorable inferences, in the absence of a knowledge of facts, which being a matter of household concern, the curtain must not be lifted.

The names of the Ladies are as follows: Mrs. Wm. Brewer; Mrs. Joseph C. White; Mrs. Nicholas Brewer; Mrs. Joseph Brewer; the Misses Joseph Bruner; Mrs. George W. Chiswell; Mrs. Wm. Chiswell; Mrs. Alexander Soper; Mrs. Wm. Cissel; Mrs. Warren King; Mrs. P. H. McLeod; Mrs. John A. Jones; Mrs. Benjamin White; Mrs. Richard H. Jones; Mrs. Col. Shrieve; Mrs. John L. T. Jones; Mrs. Samuel Young; Mrs. Henry Young; Mrs. Hezekiah Trundle; Mrs. Wm. Matthews; Mrs. Frederick S. Poole; Mrs. James S. Alnut; Mrs. Robt. M. Williams; Mrs. Horatio Trundle; Mrs. Joseph White; Mrs. Samuel Milford; Mrs. Benjamin White, jun.; Mrs. Walter Williams.

THE WHOLE DUTY OF WOMAN.

INTRODUCTION.

Give ear, O ye daughters of beauty, attend to the voice of your sister, for experience hath taught her wisdom, and length of days virtue and understanding.

My father was the brother of *Tenderness:* my mother was the sister of *Love.*

As the rosebud opening to the morn, as the dewdrop on the lily, so was the loveliness of my youth.

I awoke at the rising of the dawn; my salutation was that of joy and gladness. *Pleasure* beckoned me forth, and I sported in the sunshine of *Plenty.*

The hours were swift, and ran smiling away; but the lightness of my heart outlived the going down of the sun.

The day departed with the mildest breeze, and the night but invited me to the bed of repose.

My pillow was the softest down, my slumbers attended with golden dreams.

Thus one day passed away, and the morning of the next found me happy.

Happy are the hours of artless innocence! happy the days of virgin simplicity, while the bosom is a stranger to deceit, and the heart unconscious of the painful sigh!

O that I could overtake the wings of time! O that I could recall the pleasures of my youth! for the days of my womanhood have been days of many sorrows, the tears of misfortune have bedimmed the lustre of mine eye: the lily is fallen, and the rosebud is blown and withered on my cheek.

For I listened to the voice of *Adulation,* and her bewitching blandishments allured me to destruction.

The silver tongue of *Flattery* is hollow, and laden with guile; the manna that drops from her lips is corrosive poison to the heart.

Hear then, O daughter of America! O fairest of the fair among women! let my precepts be treasured in thy bosom, and walk in the ways of my counsel; so shalt thou shun the thorn of reproach, more keen than the bite of the asp, more venemous than the sting of the scorpion.

The hand of Scorn shall point its finger from thee; the tear of Misery shall never bedew thy cheek; thy life shall be replete with good things, and peace and honor shall satisfy thy soul.

CURIOSITY.

As the first of all evils, as the source of calamity, as the beginning of pain, avoid, O daughter of Eve, the bewitching charm of curiosity.

Seek not to know what is improper for thee; thirst not after prohibited knowledge; for happier is she who but knoweth a little, than she who is acquainted with too much.

Remember thy mother, the daughter of heaven, arrayed in the whitest robes of innocence; forget not the fatal consequence of her disobedience.

How much happier in the bowers of Paradise, feasting on the luscious grape of gladness, than wandering in the wilderness of care, to chew the bitter weed of repentance!

Be thou contented, therefore, with knowledge fitting for thee; for in the acquaintance of many things lieth not wisdom; but in the knowledge of that which is meet.

Let the threshold of thy neighbor's door secure her family, let her window tempt not thine eye to see, nor the open casement thine ear to hear the secrets of her house.

The prying eye is a foe to itself, and the listening ear will hear itself slandered.

Art thou inquisitive after deeds of scandal and reproof, inquire of thyself, and thou wilt find employment within.

Art thou a virgin, doth the bloom of health glow lively on thy cheek, study not to know the ways of man.

As the way of a serpent in the grass, or a traveller over the waste, in a dark night, so the ways of man are dangerous and hard to find out.

Thy ignorance of his cunning may lay thee open to his deceit; but the knowledge thereof must be the consequence of thy being deceived.

Learn, therefore, O woman, what thou shouldest know, before thou seekest farther knowledge.

SCRAPS.

The grave has been defined to be an ugly hole in the ground, which lovers and poets wish they were in, but take uncommon care to keep out of.

A person once sent a note to a waggish friend, for the loan of his *noose* paper, and received in return his friend's *marriage certificate.*

The initial letters of the names of the late French Provisional Government—Arago, Lamartine, Ledru (Rollin,) Marrast, Albert, and Dupont—form the words "ALL MAD."

The race-horse, "Justice to Ireland," has been sold to the Duke of Richmond for £2500—$12,500.

RECEIPTS.

To Clean Black Silks.—To bullock's gall add boiling water sufficient to make it warm, and with a clean sponge rub the silk well, on both sides, squeeze it out, and proceed again in like manner. Rinse it in spring water, and change the water till perfectly clean; dry it in the air, and pin it out on a table; but first dip the sponge in glue water, and rub it on the wrong side; then dry it before the fire.

To Preserve Clothes.—As clothes, when laid up for a time, acquire an unpleasant odor, which requires considerable exposure to the atmospheric air to remove, it can be prevented by laying lumps of recently made charcoal between the folds of garments; and even when the odor is already fixed, the charcoal will absorb it.

Fried Potatoes.—The French cooks at the large hotels are making this dish very fashionable. The potatoes are peeled, wiped, and cut into thin slices, then thrown into a frying-pan containing an abundance of hot lard; as soon as they become brown and crisp, they are thrown into a cullender to drain, are then sprinkled with salt, and served up as hot as possible. It is a breakfast dish.

Potted Beef.—Take cold boiled beef, (the lean half of the round is the best adapted for the purpose,) remove all the skinny parts, mince it fine, and pound it in a mortar with fresh butter till quite smooth, seasoning with nutmeg, black pepper, cayenne, a little mace, and salt, if requisite; press it very closely into small flat pots, clarify some fresh butter, and pour over the top, and when cold, paper as jams and jelly, omitting the brandy.

To Polish Mahogany Tables.—Grate very small a quarter of an ounce of white soap; put it into a new glazed earthen vessel, with a pint of water; hold it over the fire till the soap is dissolved; then add the same quantity of white wax cut into small pieces, and three ounces of common wax. As soon as the whole is incorporated, it is fit for use. When used, clean the table well, dip a bit of flannel in the varnish when *warm*, and rub it on the table; let it stand a quarter of an hour, then apply a hard brush in all directions, and finish with a bit of clean dry flannel. This will produce a gloss like a mirror, and to those who dislike the smell of turpentine or oil, will be very useful.

Water Souchy.—This is a mode of dressing fresh-water fish, of every description. They must be quite fresh, cleaned and trimmed; put them in a stew-pan, and cover them in water; add a few parsley leaves and roots cut in shreds, a few green onions cut very fine, a little horseradish, and a bay leaf, seasoned with pepper and salt; skim it carefully when it boils. When the fish is quite done, send it up in a deep dish, or tureen; also a few slices of bread and butter on a plate.

Fritters which may be made quickly.—One egg, two spoonsful of flour, a little sifted sugar and ginger, milk sufficient to make a smooth batter; cut a middling-sized apple into thickish slices, and put into the batter, and with a *spoon* put them into the frying-pan, with just the batter which is taken up in the spoon; have a sieve with the bottom up, and, as fried, lay the fritters upon it to drain. The above quantity is sufficient for a small dish.

Apple Jelly.—Take good winter apples, not too mealy, pare and cut them in slices, put them into a deep stewpan, with as much water as will cover them; boil them gently till they will mash, and then strain them through a jelly-bag; to every pint of liquor add one pint of loaf sugar: boil it till it comes to the top for ten minutes, then pour it into a mould with or without sliced lemon peel. A quart only should be done at a time. This jelly will keep, and make a pretty dish at any time.

First-rate Blacking.—Three ounces ivory black, two ounces molasses, half an ounce of vitriol, half an ounce of sweet oil, quarter of a pint of vinegar, and three-quarters of a pint of water. Mix the oil, treacle, and ivory black gradually to a paste, then add the vitriol, and, by degrees, the vinegar and water. It will produce a beautiful polish.

To Clean Marble.—Pound very finely a quarter of a pound of whitening, and a small quantity of stone blue; dissolve in a little water one ounce of soda, and mix the above ingredients carefully together with a quarter of a pound of soft soap. Put the whole into an earthen pipkin, and boil it for a quarter of an hour on a slow fire, carefully stirring it. Then, when quite hot, lay it with a brush upon the marble, and let it remain on half an hour. Wash it off with warm water, flannel, and scrubbing-brush, and wipe dry.